TITLE: METHOD AND APPARATUS FOR PERFORMING INSURANCE INSOLVENCY OPERATIONS

5   **BACKGROUND**

   1.   Technical Field

   This application generally relates to business methods, and more particularly to business

methods that may be performed in a computer system.

   2.   Description of Related Art

10   Business methods, such as those associated with the insurance industry and services

performed in connection with insolvency of an insurance company and the operation of property

and casualty guaranty funds, may be performed manually. Tasks may include, for example,

performing calculations and manual data entry. Performing these tasks may include undertaking

cumbersome and tedious operations. Computer systems may be used in performing tasks or

15   functions such as those traditionally performed in connection with various business methods.

However, there may be drawbacks with existing systems.

   An existing system may include a variety of different hardware and/or software that is not

easily maintainable or readily integrated. Additionally portions of software in an existing system

20   may include functionality that is not needed in performing other operations creating possible

additional maintenance. For example, modifications may be needed in performing calculations

when there is a statutory change in laws related to insurance claims, deductibles and the like.

1

Such a modification may impact one or more software modules each associated with different vendors making maintenance and integration of existing systems difficult. It may be difficult to identify which different modules require modification, and what the effects will be to other modules in terms of testing and verification. Such modifications, for example, as may be required in maintenance, may require knowledge of multiple vendor software in multiple programming languages. Further, such difficulties may also be encountered when adding functionality to an existing system that may not be readily extensible.

Computer systems may be used as an alternative to, and also in combination with existing manual procedures. However, there may be problems in integrating both manual and automated procedures, such as those that may be implemented using software and hardware included in a computer system.

Thus, it may be advantageous and desirous to provide techniques that are efficient and flexible in performing business methods such as those associated with performing insolvency tasks and services in connection with guaranty funds.

SUMMARY OF THE INVENTION:

The invention may be used for managing monies and paying covered claims as defined in connection with an insurance insolvency. A state funds exists for each state for the purpose of

paying covered claims and includes one or more accounts. An insolvent company is associated

with one or more state funds in which the insolvent company was licensed.

In accordance with principles of the invention is a method executed in a computer system

5   for managing monies and information in connection with an insurance insolvency. A state fund

is designated for each state associated with the insurance insolvency. Associated with the

state fund is an insurance account of a first type. Associated with the insurance account is at

least one line of insurance.

10   In accordance with another aspect of the invention is a computer program product for

managing monies and information in connection with an insurance insolvency. Machine

executable code is included for designating a state fund for each state associated with the

insurance insolvency, associating with the state fund an insurance account of a first type, and

associating with the insurance account at least one line of insurance.

3

BRIEF DESCRIPTION OF THE DRAWINGS

Features and advantages of the present invention will become more apparent from the following detailed description of exemplary embodiments thereof taken in conjunction with the accompanying drawings in which:

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Figure 1 is an example of an embodiment of a computer system;

Figure 2 is an example of an embodiment of software that may be included in a host system;

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Figure 3 is an example of an embodiment of software that may be included in the data storage system; and

Figure 4 is an example of software that may be included in the administrative and

15   maintenance module or software included in the data storage system;

Figure 5 is a flowchart of steps of one embodiment for performing steps in accordance with a guaranty association upon the occurrence of an insolvency;

20   Figure 6 is an example of an embodiment of a screen display in connection with file options and operations;

4

Figures 7A through 7E are examples of embodiments of screen displays used in

connection with claims operations and processing;

Figures 8A through 8G are examples of embodiments of screen displays used in

5   connection with unearned premiums and associated processing operations;

Figures 9A through 9C are examples of embodiments of screen displays used in

connection with assessments and associated processing operations;

10   Figures 10A through 10B are examples of screen displays used in connection with

member and state fund processing operations;

Figures 11 is an example of an embodiment of a screen display used in connection with

financial processing operations;

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Figures 12 is an example of an embodiment of a screen display showing menu operations

used in connection with administration;

Figure 13 is an example of an embodiment of different menu options used in connection with reporting;

Figure 14 is an example of an embodiment of a screen display of menu options used in

5   connection with diary operations;

Figure 15 is an example of an embodiment of screen display used in connection with changing a user password;

10   Figure 16 is an example of an embodiment of a screen display of users of the system;

Figure 17 is an example of an embodiment of the menu and screen displays that may be used in connection with assigning roles in accordance with users and their different tasks;

15   Figure 18 is an example of an embodiment of screen displays used in connection with performing account and user information management;

Figure 19 is an example of an embodiment of a system used by an insolvency service provider in connection with other systems;

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Figure 20 is an illustration of an embodiment of the hierarchical representation of the various funds and relationships to lines of insurances (LOIs).

Figure 21 is an example of an embodiment of a screen display used in connection with

5   mapping Uniform Data Standard (UDS) coverage codes;

Figure 22 is an example of an embodiment of a screen display used in connection with displaying totals by coverage code for a specified claimant;

10   Figure 23 is an example of an embodiment of a screen display used in connection with displaying a list of claimants and totals in accordance with a specified coverage type;

Figure 24 is an example of an embodiment of a screen display used in connection with creating a diary entry;

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Figure 25 is an example of a table summarizing information regarding trigger events for automatic diary entry generation and notification in one embodiment;

Figure 26A illustrates the relationship between Figures 26B through 26H in forming an

20   example of one embodiment of a representation of a database schema 600 for unearned premium and claims processing, and other common functionality;

Figures 26B through Figure 26H form an example of a representation of one embodiment of a database schema that may be used in connection with claims and unearned premium processing and other common functionality used between different modules;

5   Figure 26I is a higher level view of a database schema illustrated in Figures 26b-26H, Figure 27, and Figure 28; and

Figures 27 and 28 are an example of a representation of a database schema in one embodiment that may be used in connection with assessment processing.

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8

DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

Referring now to Figure 1, shown is an example of an embodiment of a computer system. The computer system 10 includes a data storage system 12, a communications medium 18, and one or more host computer systems 14a-14n. In this particular example, the communications

5   medium 18 serves as a means for communication by which each of the host computer systems 14a - 14n may communicate with the data storage system 12. In this embodiment of the computer system 10, the N hosts 14a - 14n may perform as a client systems in connection with processing requests for data stored in the data storage system 12. In this example, the data storage system 12 may act as a server system providing information and data to each of the host

10   computer systems as well as for storing data entered to the data storage system 12 from each of the host computer systems 14a-14n. The communication medium 18 may be any one of a variety of networks or other types of communication mediums known to those skilled in the art. For example, the communication medium 18 may be the Internet, an intranet, or other network connection by which the host systems 14a-14n communicate with the data storage system 12,

15   and by which the data storage system 12 communicates also with each of the host systems 14a-14n.

It should be noted that other embodiments of the computer system 10 may include a different number of host systems as well as other devices that perform any one of a variety of

20   functions in accordance with each particular embodiment.

Each of the host systems 14a-14n and the data storage system 12 included in the computer system 10 may be connected to the communication medium 18 by any one of a variety

of connections as may be provided and supported in accordance with the type of communication medium 18. The processors included in each of the host systems 14a-14n and the data storage system 12 may be any one of a variety of commercially available, single or multi-processor systems, such as an Intel-based processor, IBM main frame, or other type of commercially

5   available or proprietary processor able to support incoming traffic in accordance with each particular embodiment and application and functions to be performed thereon.

It should also be noted that the particulars of the hardware and software included in each of the host systems 14a-14n and the data storage system 12 are described herein in more detail

10   and may also vary in accordance with each particular embodiment. Each of the host systems 14a-14n as well as the data storage system 12 may all be located at the same physical site, or alternatively may also be located in different physical locations. Examples of the communication medium that may be used to provide the different types of connections between the host computer systems, and the data storage system of the computer system 10 may use a

15   variety of different communication protocols such as SCSI, ESCON, Fibre Channel, or GIGE (Gigabit Ethernet) and the like. Some or all of the connections by which the host systems 14a-14n and the data storage system 12 may be connected to the communication medium 18 may pass through other communication devices such as a Connectrix or other switching equipment that may exist such as a phone line, a repeater, a multiplexer or even a satellite.

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Each of the host systems as well as the data storage system 12 may perform different types of data operations in accordance with the different types of administrative tasks and other

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functions that are to be performed in accordance with different operations and applications executing in the computer system 10 of Figure 1.

5   It should be noted that the number of host computer systems as well as the omission of other types of devices and systems in the computer system 10 of Figure 1 should not be construed as a limitation.

Referring now to Figure 2, shown is an example of an embodiment of software that may reside within a host computer system, such as any of 14a-14n. It should be noted that although

10   what will be described in connection with Figure 2 is software that is shown as residing on host computer system host-1 14a, a similar software arrangement, as well as other software, may exist on this host computer system or any of the other host computer systems 14a-14n in the computer system 10 of Figure 1.

15   Shown in Figure 2 is a user interface module 22, a communication module 26, and user input and output 24. In this particular example, the user interface module 22 includes software that may display one or more user interfaces in connection with obtaining and outputting user data, such as user input and output 24. The user interface module may be used, for example, as an input interface to collect the data which is sent to the communication module 26 which further

20   communicates over communication medium 18 to perform data transfer operations to and from the data storage system 12. In this particular example, each of the host computer systems may include a portion of client software, such as the user interface module 22 which may be a client portion of a software application for gathering data that may be sent and transferred to the data

11

storage system 12. For example, in one embodiment, the user interface module may be

implemented using Visual Basic. It should be noted that other embodiments may store all or a

portion of the user interface module 22 on another system. In other words, portions of the user

interface module 22 may be stored on a different computer system and downloaded when needed

5   to a particular host system serving as a client.

The communication module 26 may be any one of a variety of high and low level

software communications packages, for example, that may interface with the communication

medium 18 in accordance with the communications protocol, and network or other type of

10   communication connection included between a host computer system and the communication

medium 18. This may vary in accordance with each particular embodiment.

The user input and output 24 may be entered, for example, interactively as well as from a

data file. This may vary in accordance with each particular embodiment, for example, in

15   accordance with a particular type of interface displayed by the user interface module 22. As will

be described in more detail in paragraphs that follow, in one embodiment the user interface may

be implemented using Visual Basic for displaying a form-like screen in which a user enters data

in particular fields. Data entry may be done interactively. Additionally, the particular type of

user input and/or output that may be displayed or accepted from a user may vary in accordance

20   with the different functions or tasks performed in the computer system 10 of Figure 1. For

example, a request for a particular task may be made from a menu selection in accordance with

user input 24 as accepted through user interface displayed with the user interface module 22. If

this is an administrative task, for example, this request for a performance of a particular task may

be sent to the data storage system 12. This and other examples will be presented in more detail in paragraphs that follow.

5   Referring now to Figure 3, shown is an example of an embodiment of software that may reside within a data storage system 12. In this particular example, the data storage system 12 may be used for maintaining and performing I/O operations in connection with a database. In particular, shown as included in the data storage system 12 is a communication module 30, an input processing and interface module 32, a plurality of other modules 34-42, and database files 44.

10 Communication module 30 may be similar to that as described in connection with host computer system software communication module 26 and may vary in accordance with each particular embodiment and details included therein. The communication module may interact with the input processing and interface module 32 which may serve as an interface between the

15 communications module and the different types of functions performed by software included in the data storage system 12. In other words, there may be a variation of modules from those shown in Figure 3 in accordance with the tasks to be performed by the data storage system. In this example, shown is an administrative and maintenance module 34, an unearned premium module 36, a claim processing module 38, an assessment module 40, and a reporting module 42.

20 Each of the modules 34-42 perform particular functions and operations in connection with data stored in the database files 44.

The input processing interface module 32 may determine, in accordance with the data

input or to be output, which of the different functional modules 34-42 may be also involved in a

particular operation. For example, the administrative and maintenance module 34 may include

procedures or functions that may be implemented in any one or more of a variety of

5   programming languages to perform functions designated as an administrative or maintenance

task. This may include, for example, updating information in the database file as well as

initializing and creating records in accordance with a particular member's information.

The unearned premium module 36 may perform calculations in accordance with an

10   unearned premium calculation that will be explained in more detail in paragraphs that follow.

The claim processing module 38 may perform functions associated with processing a

newly reported insurance claim as well as an initial input of existing claims pending at the time

of an insolvency of an insurance company.

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The assessment module 40 may perform an allocation operation for determining how an

assessment is prorated among the solvent members licensed in a state fund.

The reporting module 42 may include various reporting functions, for example, as may

20   be required to produce reports in accordance with data stored in the database files 44 in

connection with any reporting needed as may vary in accordance with each particular

embodiment.

The software described in connection with the host system 14a and the data storage system 12 may include software providing functionality for administrative services in connection with a guaranty fund, for example, as may be associated with insolvency of insurance companies. The services may be provided, for example, by a nonprofit association using an insurance insolvency fund to pay monies as appropriate. In other words, an insolvency service provider, for example providing services in connection with property and casualty guaranty funds, may be utilized when there is an insolvency in the insurance industry. When a property and casualty company is placed into receivership and/or ordered liquidated, this event triggers insurance insolvency and further may invoke the services to be performed by a service provider. These tasks may include, for example, claim processing, unearned premium processing as well as assessment processing.

For example, monies may be paid from a state fund or guaranty association having a designated amount determined in accordance with accepted insurance practices. Payments may be made from this state fund in connection with claims pending at the time of insolvency and new claims that may arise during a time period, for example, of sixty days after the insolvency, and the like. The amount included in an insolvency fund as well as amounts determined in connection with claims and unearned premiums may be in accordance with different state laws having different limits statutorily specified. Thus, rules for determining the amounts may vary in accordance with each occurrence of an insolvency. For example, different rules may be set forth by state laws as well as may vary in accordance with a particular line of insurance business, such as auto, home and the like within a particular state. The software in this system 10 of Figure 1

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may provide a flexible arrangement for making rule changes as well as the addition of new rules

in accordance with different state laws and lines of business.

5   As will be described in paragraphs that follow, the software that may be implemented in

the computer system 10 of Figure 1 may be a client/server application which includes software

residing on a client system, such as one of host computer systems 14a-14n, and a server system,

such as the data storage system 12. In this particular embodiment, the client may include

software that is implemented using Visual Basics, for example, as a user interface. The server,

such as the data storage system 12, may include a SQL back end such that the state laws or

10   variations and limits may be embodied in SQL storage procedures. In other words, the business

logic or statutory logic that may vary in accordance with a particular line of business and/or state

may be embodied in customized procedures included in each of the different types of modules of

Figure 3, such as claim processing module 38 for performing claim processing calculations. In

this particular example, the database file 44 may be implemented as database tables using a

15   relational database schema described in more detail elsewhere herein. It should be noted that one

embodiment may implement the database using Microsoft SQL 6.5 as the database engine.

Other embodiments may use other software in accordance with hardware and/or software that

may be included in each embodiment.

20   In one embodiment, there are approximately 125 tables in which each table corresponds

to a different entity, such as a claim table, a payment table and a claimant information table and

the like. Each record within a table may store a representation of an instance of data. For

example, the claimant information table may include fields which include a claimant name,

16

address and other types of information. An instance of this may be a particular value associated with claimant information, such as a claimant's name and address.

In this particular embodiment, a variety of functions may be provided and customized in

5   accordance with rules for a plurality of different states and different lines of insurance. In other words, the logic embedded within these routines or procedures that may be included in a particular module, such as the claims processing module 38 or the unearned premium module 36, may include particular procedures for performing calculations in accordance with a plurality of different state laws as well as different lines of insurance and within an insurance account. For

10   example, deductible and "caps" or maximum amounts associated with different modules such as claims, may also vary with insurance account as well as by state. Processing associated with the different modules, such as the claims processing module 38, the claims may be performed with one initial load of data, such as for claims pending at time of insolvency. Additionally, modules may include updating functions as needed, such as updates may be performed accordingly as

15   additional claims are made.

An assessment, such as may be performed by the assessment module 40, may be a determination of the amount of money each solvent member, licensed in a state fund, pays to the guaranty association. Information that may be used in determining the amounts include statutory

20   amounts for each insurance account within a particular state fund, such as commercial auto, worker's compensation, and the like. Assessments may be done on a predetermined periodic basis, such as annually, as well as on an "as needed basis" as described in more detail in paragraphs that follow. It should be noted that in one embodiment, the assessment data and the

associated input format, for example, by each state in accordance with insurance accounts, may

be provided by the National Association of Insurance Commissioners (NAIC).

5   In calculating an assessment, reserves are taken into account and may include an estimate
made for a subsequent year. Subtracted from that estimate are those monies currently held in

reserves such that what is reflected is the additional amount needed in accordance with

expectations for claims and monies to be paid out for the subsequent year. The annual

assessment may be based on the active or expected claims for a particular time period.

10   It should be noted that the function as may be performed, for example, by the
administrative and maintenance module 34, may also be referred to as "common functionality"

that is common between other modules. Member and state information may include, for

example, the name of the particular insurance companies for a particular state. Claim data may

be customized per insurance company data set. In other words, when an insurance company is

15   initially declared insolvent and/or ordered liquidated, their particular input format for existing
claim data may be entered into the system such as in the database files 44. There may be no

common format or input medium for the different insolvent insurance companies. Thus, a

combination of customized manual and/or automated types of techniques may be used to enter

existing claim data when an insolvency initially occurs.

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Referring now to Figure 4, shown is an example of an embodiment of software modules

that may be included in the administrative and maintenance module 34 as previously described in

connection with software that may reside on the data storage system 12. It should be noted that

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the software modules described in connection with Figure 4 may be a portion of modules

included in an embodiment. Included in Figure 4 is a security module 34a, a member and state

management module 34b, and accounting system interface module 34c, and any additional

modules 34d that may be used in performing the various administrative and maintenance tasks of

5 the administrative and maintenance module 34. In particular, the security module may perform

functions that may vary with each particular user, such as restricting access for paying out claims

over a particular dollar amount in accordance with the particular user ID, and the like. Different

types of security may be implemented by the security module 34a in accordance with the

different types of functions and amounts included in a particular embodiment.

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The member and state management module 34b may implement functions associated

with obtaining member and state particular accounting information. In other words, the function

performed by module 34b may include initialization and creation of records in the database files

or tables 44 in a particular embodiment for each member insurance company. This may include,

15 for example, information such as particular lines of insurance accounts as well as associated

amounts, such as deductibles used in performing calculations, such as may be used by the

unearned premium module 36 and the claim processing module 38. The accounting system

interface module 34c may perform functions to provide for interfacing to other systems, such as

an accounting system, and may generate an input file for use by an existing accounting system.

20 Functionality provided by module 34c may produce customized output by converting data from

the database files 44 into a file format used as input to another system, such as the accounting

system. Other types of conversions of data and interfaces may be provided in accordance with

other modules, for example, as may be included in the other modules component 34d and may

vary in accordance with each particular embodiment.

Referring now to Figure 5, shown is flowchart 100 that includes steps of one embodiment

5   that may be performed when an insurance company insolvency occurs. This includes steps

corresponding to services that may be performed in connection with a guaranty association. At

step 102, a "signing up process" occurs in which there is an initialization of the database with

member and state information. In other words, initialization of particular files and records in the

database 44 previously described in connection with Figure 3 may be performed by software

10   included, for example, in the administrative and maintenance module 34. Tasks performed may

include, for example, entering data and records in accordance with particular insurance accounts

as well as particular state laws and amounts that may vary with state and line of insurance.

Member information may include information about one or more particular insurance company

that may be a "member" or "members" for a particular state. At step 104, some time later, a

15   member insurance company may become insolvent. In this particular example, the one or more

insurance companies that are insolvent at step 104 are members entered at step 102, in which an

insolvency service provider performs services in connection with the insolvency.

At step 106, the insolvency service provider assumes the active claims of the insolvent

20   insurance company. Various processing steps may be performed in connection with assuming

active claims of the insolvent insurance company, such as initially loading and/or processing

active claims, for example, using the claim processing module 38. This is described in more

detail elsewhere herein.

At step 108, insolvency notification procedures may be performed. These steps may be performed, for example, by the insolvent insurance company itself, as well as by the insolvency service provider in connection with active and subsequent claims. For example, this may include

5　notification of cancellation of existing policies and the handling of subsequent claims by the insolvency service provider for a time period, such as 60 days subsequent to the cancellation date. Additionally, it should be noted that other processing operations may be performed in connection with step 108 tasks. These other operations may also be performed by the insolvency service provider. These may include, for example, at the request of a liquidator, forwarding

10　proof of claim forms to claimants and insureds as well as publishing notices of insolvencies in periodicals.

At step 110, it is determined whether an assessment is needed in accordance with the funds on hand and size of the insolvency. In other words, a determination is made based on the

15　amount of monies in the reserve fund to pay out claims in connection with the current insolvency, and an assessment may be made at step 112.

Control proceeds to step 114 where refunds are issued on cancelled policies. Calculations may be needed, for example, in performing steps such as by the unearned premium

20　module 36. At step 116, additional claim processing may be performed at some time later for any additional claims arising during a pre-determined time period, such as, for example, 60 days subsequent to the insolvency of an insurance company. These claims may be added as they arise, for example, in connection with inputs to the claim processing module 38.

At step 118, report generation and assessment may be performed as needed on a periodic

basis by the different modules such as the assessment module and the reporting module,

respectively, included in the software of the data storage system 12.

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It should be noted that with regard to the host systems included in the computer system

10 of Figure 1, different requests for report generation and assessment as well as input of data for

each of the different state and members may be input from a host system, such as any one or

more of hosts 14a or 14n.

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Processing may be performed in this example on the server system such as the data

storage system 12. It should be noted that other types of configurations or distribution of tasks

may also be included in the embodiment. For example, the data storage system 12 may include

one or more processors, each of which may be a single or multi-processor system connected

15   together by any type of communications media or network connection, for example, to perform a

distributed processing or other type of arrangement of the tasks described herein.

It should be noted that the foregoing description provides a flexible system and

arrangement for efficiently processing data in connection with tasks described herein.

20   Additionally, the foregoing is flexible and extensible having the ability to adapt to changing

business needs as well as any changes, for example, that may occur within the statutes, and the

like. In other words, the foregoing description may be modified and adaptable in accordance

with different types of changes in statutes as well as the addition of new functionality particular

22

to an insurance account. The top-down design approach provides for ease in adding
functionality and allowing a "clean" interface with other systems, such as an accounting system
and other types of systems that may need to also use the data stored in, for example, the database
files 44. The graphical user interface provides for easy data entry and retrieval and display of

5   information to a user.

The claim processing module 38 includes functions to process worker's compensation
claims and other claims such as, for example, homeowner, commercial auto, and private
passenger physical damage claims that may arise in handling different lines of business of the

10   different states that may be integrated into the system 10 of Figure 1. The claim processing
module includes the ability to pay and calculate different amounts in accordance with the
guaranty association statutes.

Referring now to Figure 6, shown is an example of an embodiment of a screen display

15   that may be used in connection with displaying file operations. The user interface display 150
shows an example of one type of organization of the different operations that may be performed
in connection with processing in the computer system 10 of Figure 1. It should be noted that
other embodiments may include other types of menu displays as well as other types of
organizations and hierarchies to embody the functions described herein and should not be

20   construed as a limitation. Similarly, other types of menu displays may embody the same
functionality or similar functionality as described herein.

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In this example, at the top of the graphical interface or menu display 150, are a variety of different categories of operations that may be performed in connection with software that may operate in the computer system 10 of Figure 1. For example, shown in the display 150 is a file processing operation 152 displaying file operation menu as including options 152a and 152b.

5   Also included in the display 150 are claims processing operations 153, unearned premium operations 154, assessment operations 156, member/state operation processing steps 158, financial processing operations 160, administrative processing operations 164, reporting options 164, diary processing operations 166, and other operations as may be included in any one of a variety of different menus such as the view option 168, the window option 170, and the help

10   option 172.

As will be described in more detail in paragraphs that follow and also shown in connection with Figure 6 for file processing operations 152, selecting a particular category of processing operations from the menu bar display 151 results in the display of one or more other

15   processing operations in accordance with the selected option. Shown in the example of Figure 6, selection of the file operation 152 causes display of the menu options printer setup 152a and exit 152b.

What will now be described in connection with Figures 7A-7D are examples of screen

20   displays of one embodiment used in connection with the claims operations and associated processing.

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Referring now to Figure 7A, shown is an example of a screen display 200 that may be used in connection with performing claims processing operations as may be selected from the claims option from the tool bar 151 previously described in connection with Figure 6. Included in the claims menu options 153 is an option to perform a claims search through selection of 153a, as well as selection and input of new information for a new claim by selecting menu option 153b. It should be noted that as will be described in connection with this and other Figures, shown in the right-hand portion of each menu option are shortcut characters as known to those skilled in the art that may be used and also as an alternative to selecting the corresponding menu option on the left-hand portion of the same line of a menu item displayed. As will be described in more detail herein, in performing a claims search by selecting the option of menu item 153a, a query may be performed of existing claim searches in accordance with selected criteria. Selecting menu option 153b for entry of new claims may include entry of a new claim into the database, for example, an associated and recorded information that may be stored in the database file 44 previously described in connection with Figure 3.

It should be noted that in this particular embodiment, a menu item may be selected by using keyboard short-cut control characters on the right-hand side of a menu item display, as well as by selecting an item from the menu as with a mouse and mouse buttons. It should also be noted that other embodiments may use other types of techniques, such as touchscreen and.or voice recognition, in connection with selecting and performing an option.

Referring now to Figure 7B, shown is an example of a screen display that may be used in connection with claims processing when the option, for example, of entering a new claim has been selected as may be performed in connection with the selection of menu item 153b previously described in connection with Figure 7A. When the option is invoked for selecting

5   and entering a new claim, shown in Figure 7B is an example of a screen display 202 that may be used in connection with entering a new claim. Included in the display 202 is a top portion of claim detail information 206 as well as various tabs such as 204a- 204c that may be used in connection with different types of processing operations performed with a new claim or existing claim in the system. In other words, the tabs 204a- 204c are a further detailed description and

10   organization of hierarchy of the different operations that may be performed in connection with claim processing.

The entry of information in this example is organized and associated with these subcategories and operations. In data entry fields associated with the top portion 206 are general

15   claim detail information. In this example, different types of information include claim number, selection of a particular state fund, an insolvency name/number, an associated policy number, as well as different insured information such as the name of the insured. The state fund and other fields displayed on the screen 202 will be explained in more detail elsewhere herein.

20   It should be noted that the state fund is associated with a particular state and the particular type of funds that may exist within a particular state may vary in accordance with statute and other types of details associated with each particular state for which the system 10 of Figure 1

26

performs insolvency functions. Also included in the screen display 202 are tabs 204a-204c. In

the screen display 202, tab 204a is considered active as shown by the bolding of the letters for

policy information. Also shown at the bottom portion of the screen display 202 are various

menu options buttons included in the field 208. As known to those skilled in the art, one

5   technique which may be used to show which type of options are active in accordance with a

particular screen display is by graying out those options which are not active. For example,

options such as totals, notes, and diary are grayed out and thus are not active in accordance with

functions currently being performed. In accordance with policy information displayed by tab

204a, different types of policy information for a particular claim being entered may be displayed.

10   For example, the insured address information is included in the policy tab 204a.

The embodiment of the screen display 202 may include information in the policy tab

204a that is specific to the policy information for which claims may be made. For example,

indicated in tab 204a are different types of policy limits such as, for example, with regard to

15   limits for coverages under a particular policy. Also indicated is a policy level and an excess

amount. It should also be noted that in the upper portion 206 a type field may include an option

or selection such as claim indicating the type of record which is being created. It should be

noted that as described elsewhere herein, miscellaneous information may be created and have an

associated type. One embodiment includes a type or status of "CBN" which may be used in

20   connection with any one or more of a variety of functions. An embodiment may use a "CBN"

type of record when entering partial claim information.

Referring now to Figure 7C, shown is an example of a screen display 204 as may be shown on the tab 204b claim is active in connection with performing claims processing operations, for example, data operations for a new claim. The claim tab 204b includes data as may be associated with a particular claim being created. This includes, for example, different

5   types of date information as to when the claim was entered and by whom, the particular claim handler assigned as well as any other related claim information such as other claim entries that may be related to the same incident or common to this particular being entered now.

Referring now to Figure 7D, shown is an example of a screen display 212 that may be

10   used in connection with entering claimant information 204c in connection with claims processing. Shown in this example that may be performed in connection with claim processing as may be associated with entry of a new claim, different types of claimant information may be entered and displayed. In this example, the portion of the screen display 212 as shown in the area of 206 has been filled in partially. For example, the designated state fund has been chosen

15   to correspond to the State of Massachusetts as shown in field 206a. A claim number has been entered for example in field 206b. A type of claim has been entered as displayed by in this example the three-letter code in field 206c. The name of the insolvency for which these functions are being performed is in accordance with data entered in field 206d. The particular GFMS number or system information number may be, for example, assigned by the system to

20   this particular claim is shown in field 206e. The particular status of this claim in this instance is open as indicated by field 206f. The date of the loss is indicated in field 206f. Different fields of insured information may be filled in as in field 206i.

28

It should be noted that, not shown but, included in this embodiment as indicated by the arrow on the right-hand side of each of these fields such as 206a, one may select from a plurality of different options that are valid in the system. In other words, to assist in data entry, when a

5   particular field is activated for data such as the state fund 206a, when a user selects, as by clicking with a mouse button on field 206a, a variety of different state fund abbreviations corresponding to different states may be displayed from which a user may select one.

Included in tab portion 204c is a list of claimants. In this particular example, only a

10   single claimant is shown. However, the list of claimants making a claim under the particular policy and particular occurrence displayed may be included in the claimant list shown in connection with tab 204c.

Referring now to Figure 7E, shown is an example of a screen display 214 as may be used

15   in connection with performing a search for one or more claims in accordance with specified criteria. It should be noted that this option may be selected from the original menu 153 as displayed in connection with option 153a of Figure 7A. Additionally, different types of shortcut buttons may be included as previously described in connection with Figure 7D through the portion of the screen display 208. In other words, the search operation may also be performed by

20   selecting or activating one of the buttons in the previously displayed bottom portion of the screen 208. When this option is selected, the screen display 216 may appear as a "pop-up" window

interface with different data entry fields in accordance with a particular query of a database for a particular claim.

Shown in this example of a claim search information 216, a user may perform a data

5   query in accordance with the claim number 216a, policy number 216b, claimant information 216c as well as insured information 216d. Field 216e may identify a code associated with one or more types of information. The codes may be defined as needed, for example, defining a code associated with a particular defense attorney. Additionally, a query may be performed in connection with loss information such as 216f as well as different types of insolvency and state

10   fund information 216h. A quick search is an option as included in field 216g in which a particular GFMS number may be entered. This may be a quick search as in this example because it corresponds to a unique record number and information rather than performing a query against many different records having different GFMS numbers. Once the different data fields are entered, a user may activate the search by selecting the search button 216i causing the database

15   query for example in this embodiment to be performed that may result in a display of one or more records or alternatively a message indicating that no such records are found that meet the specified search criteria. It should be noted that other embodiments may perform other actions and options in connection with processing and performing a search for one or more claims and associated information.

20

Referred now to Figure 8A, shown is a screen display of a different menu that may be used in connection with performing unearned premium operations 154. Included in the screen

display 220 is a single menu option 154a corresponding to the unearned premium operation

when entering a new unearned premium. It should be noted that in this embodiment, unearned

premium and associated processing operations refer to those premiums which at the time of

insolvency or other predetermined date have not been earned by a particular line of insurance

5   companies which have become insolvent. In one embodiment, this information may be stored

per policy holder. For example, if one pays $500 for annual insurance, and six months into the

time period of your policy your insurance company becomes insolvency, the unearned premium

is approximately 50% at that point in time. In this example, the premium is unearned with

respect to a premium which is paid by a policyholder in which an insolvency occurs.

10

Referring now to Figure 8B, shown is an example of a screen display that may be used in

connection with the selection of unearned premiums new option 154a from the screen display

220. Included in screen display 222 is a structure similar to that previously described in

connection with a claim. Common information may be included in the top portion such as in the

15   display fields included in the top portion 224. Operations and data may further be organized as

indicated by tabs 226a-226d for performing operations in connection with unearned premiums.

The top portion 224 includes information such as an identified state fund, associated insolvency,

and policy number as well as insured information.

20   The tabs identifying different types of data and associated processing may be included

with an unearned premium and associated with an unearned premium includes policy

information 226a, insured information 226b, premium calculation information 226c and a

payment history 226d. It should also be noted that a similarly displayed in connection with the

screen displays associated with claims processing, at the bottom portion of the display 222 is a

plurality of operation buttons in the bottom portion 230 corresponding to different types of

operations or shortcuts that may be selected. For example, unearned premium search or query

5   may be performed by selecting button 230a from the bottom portion of the screen 230 to perform

a data query in accordance with unearned premium policy information that may be displayed in a

format similar to that previously described in connection with performing a claim search.

Referring now to Figure 8C, shown is an example of an embodiment of a screen display

10   242 as may be displayed in connection with insured information tab 226b being activated in

connection with the previously described screen display 222. It should be noted that the screen

display 242 includes the same common upper portion 224 as well as the different tabs 226a-

226d. The difference in this screen display is that a different tab is activated. In this instance,

the insured tab 226b is active for display or entry of data that may be used in connection with an

15   insured. For example, in this embodiment different insured information may be entered in field

240 such as a street address, city and state information.

Referring now to Figure 8D, shown is an example of a screen display 244 as may be used

in connection with the active premium calculation tab 226c when entering new information

20   associated with an unearned premium. Shown in the screen display 244 with the active premium

calculation tab 226c are different data fields. Line of insurance may be specified an entered in

field 250a. A line of insurance as described elsewhere herein refers to a particular type of

insurance such as commercial auto, homeowners, and the like. Also included in premium

calculation tab 226c a user may enter information in the total premium field 250b, as well as the

premium amount paid to date, for example, in field 250c and an override amount in field 250e.

Field 250e may be used in connection with raising or lowering reserves and the amount of

5   unearned premium to be paid.

Referring now to Figure 8E, shown is an example of a screen display 254 as may be

displayed in connection with performing a policy search in accordance with unearned premium

information. Included as a portion of the display 254 is a second window or screen display 256

as may be displayed such that it appears over the screen display 254. In this example, an

10   unearned premium policy search may be performed by entering different fields of information.

In other words, an unearned premium or premiums may be searched for in accordance with

entering a state fund insolvency, as well as the UP policy number or insured information. Once

this field or fields of information is entered, the query may be performed as a database in

connection with the data entered by selecting the search button 256d. It should be noted that data

15   fields such as 256B referring to the UP policy number refers to a policy number. Other data

fields may be included in this and other types of screen displays described herein and may vary

in accordance with each particular embodiment.

Referring now to Figure 8F, shown is a screen display 258 that may be displayed in

20   connection with performing and displaying payment history information associated with an

unearned premium. Shown is the top portion of unearned premium information 224 as may be

specified in fields 224a, 224b, 224c and the like. In accordance with the displayed policy, for

33

example, as indicated by the UP policy number 224c, different payments may have been made

on behalf of the unearned premium of the shown policy. This payment history is shown in field

226d. In particular, in this instance two payments have been made as displayed in the tabular

form of the chart 260. Two entries 260a and 260b are shown as making payments with different

5   information on certain dates. It should also be noted that different options may be performed in

connection with certain payments such as reversing a payment, displaying additional recovery

information as well as deleting certain information about a payment or unearned premium.

          The foregoing operations such as reverse, recovery and other operations that may be

10   associated with a particular unearned premium may be selected through different types of

buttons, such as 262a -262c as may be included in the screen display 258. Included in the

bottom portion of the screen 208 are different buttons that may serve as shortcuts in connection

with performing or displaying other types of information.

15   What will now be described are different types of data and operation that may be

displayed in connection with an unearned premium through the use of diary entry that may be

performed or selected by selecting button 268a.

          Referring now to Figure 8G, shown is a screen display 270 as may be displayed in

20   connection with entering a diary entry associated with an unearned premium policy. Generally,

as will be described elsewhere in more detail herein, a diary entry may be associated with an

unearned premium as well as a claim in this example. A diary entry may be made by a first user

in connection with an unearned premium or a claim. One or more other users may be notified

through the use of a diary entry of a particular point of which the first user which is to notice and

be reviewed by one or more other users. For example, associated with the claim information

5   displayed in connection with screen 258, the user as indicated by user id field 272a creates a

diary entry with certain comments as indicated in field 272b. This diary entry may be sent to one

or more other users. The diary function enables customized information by a particular user to be

sent to other users as well as associated with information about a claim and unearned premium

and the like.

10

Referring now to Figure 9A, shown is a screen display 280 as may be used in connection

with displaying different processing operations performed in connection with assessments. The

assessments option 156 may cause the display of the menu shown in Figure 9A of screen display

280. A new assessment may be performed as well as a search in connection with assessment

15   processing. Additionally, assessments are performed in connection with premiums and other

operations as indicated by other fields 156c-156g. It should be noted that the ellipses or three

dots following an option as in 156c-156g may indicate as in this embodiment that a subsequent

menu may be displayed for further selection or refinement in connection with a processing

operation. As known to those skilled in the art, assessments and associated processing relate to

20   appropriating monies in different accounts as may be associated with different state funds for

payments such as those in connection with claims and unearned premiums. Generally, an

assessment may be performed on a periodic basis such as annually to assess the monies that will

be needed in the allocation or paying out of monies in connection with a particular insolvency.

35

Additionally, assessments may be performed as needed for example in connection with additional funds that may be needed at different points in time. An assessment may be characterized as a technique used to maintain an estimated amount of funds available to pay out claims as needed and unearned premiums and other monies associated with insolvencies.

5

Referring now to Figure 9B, showing is an example of a screen display 282 as may be used in connection with premiums written by all solvent members by state by year.

Referring now to Figure 9C, shown is an example of a screen display 290 as may be
10   displayed in connection with performing an individual assessment query or search. In one embodiment, the screen display 290 may be reached through an assessment search option such as 156b described in connection with other figures. Included in the screen display 290 is another subwindow or menu display 292 in connection with entering information for searching for different types of assessment records. In this example, information may be entered as in fields
15   292a and other fields in the top portion 294 of the screen display 292. Upon entry of this information such as an insolvency selected and entered in field 292a, assessment information may be displayed in tabular form, for example, in fields of grid 296. The grid as indicated by 296 may display as in this example different types of assessments performed for the selected or entered insolvency corresponding in field 292a.

20

Referring now to Figure 10A, shown is a screen display 300, that may be used in connection with displaying different types of options in connection with member and state processing operations. The member and state processing operations 158 are indicated by menu options 158a-158c in this particular example.

5

Different types of functions may be available in accordance with member and state information include a member search 158a. This may include, for example, the ability to enter new member information 158b, as well as the ability to obtain information on performed processing in connection with a state fund.

10

It should be noted that in terms of a hierarchy, a state fund may correspond to each particular state for which the system of Figure 10 may perform insolvency functions. A member is a licensed insurance company that administrates and sells, for example, different types of insurance. A more detailed description of this relationship as may be included in one

15   embodiment is described elsewhere herein in more detail.

Referring now to Figure 10B, shown is an example of an embodiment of a screen display 302 that may be displayed in connection with entering new member information as by selection menu option 158b. In this example, in connection with entering a new member information, the

20   member detail screen 304 may be displayed as a subwindow or second window on top of the screen display 302. The member detail screen display 304 includes general information about a

member, such as the NAIC number 304a, as well as the member name 304b and associated

information in field 304c, such as an associated group name and code.

5   It should be noted that certain information associated with a member may be modified as a member's status changes from solvent to insolvent. Accordingly, additional or different functionality may also be available in accordance with the insolvent status of a member. For example, upon a member becoming insolvent, additional information fields and processing, such as associated with tab 304f, may be activated. Each member may be associated with one or more state funds and corresponding insurance account(s). A member may also be disassociated with

10   one or more particular insurance accounts, for example, if a member chooses not to write policies for one or more LOI (line of insurance) associated with a particular account.

In this example, the NAIC number corresponds to descriptions as may be specified by the "National Association of the Insurance Commissioner" (NAIC) is associated with each

15   member. In field 304b, a member name is entered. Additionally, members may be assigned or associated with a group as indicated by the information entered in field 304c, by the group code and name. In this example, in terms of a hierarchy, a state fund may have associated with it one or more accounts in which each account may be aligned with one or more particular lines of insurances in accordance with state statute and other types of information. Different member

20   companies may be associated or assigned with a particular group. For example, Metropolitan may be a particular group and have one or more members such as Metropolitan corresponding to home insurance, Metropolitan Life and Auto, and the like.

As described elsewhere herein, different members may be split or combined for example as indicated by fields 304d information and 304e information respectively. In this example, as described in more detail herein, a member may be split if it is divided into two or more business

5   entities. Similarly, a member may be combined with another member if there is an acquisition, for example, by another member or other company.

In one embodiment, member information may be combined by having the link or relation between different entities that may be already included in the database rather than making a new

10   copy of information. In other words, data already in the system may be reassigned or reassociated with other data included in the database. The combine member option that may be implemented in a particular embodiment may accordingly perform these functions, for example, in connection with a merger of two or more companies.

15   Referring now to Figure 11, shown is a screen display 310 that may be used in connection with displaying menu options in accordance with processing operations for financial processing. Included in the screen display 310 is a display of the different operations that may be performed in connection with financial processing 160. The menu options 160a-160d indicate different types of financial processing operations. For example, check processing operations

20   may be displayed by selecting option 160a which may lead to one or more subsequent menu options displayed on submenus in a more detailed hierarchy. Corrections may be made to

different types of financial processing operations by selecting menu option 160B. Additionally,

GL (General Ledger) interface processing as described in more detail elsewhere herein may be

performed by selecting menu option 160c. Associated IRS form 1099 processing in accordance

with financial information may be performed by selecting menu option 160d.

5

       Referring now to Figure 12, shown is an example of an embodiment of a screen display

312 that may be displayed in connection with selecting a particular administrative function to be

performed. In this embodiment, different administrative tasks may be performed in connection

with different functions as indicated by the variety of menu options shown here. These may vary

10   in accordance with each particular embodiment.

       Referring now to Figure 15, shown is a screen display 314 with a subwindow or

subdisplay 316 as may be displayed in connection with selecting the change password operation

162n. The screen display 316 are those fields that may be used in connection with performing a

15   change of a password of a particular user account. These may be performed by a user

administrator or in accordance with other types of granted authority as described elsewhere

herein.

       Referring now to Figure 13, shown is an example of the screen display 318 as may be

20   used in connection with displaying different reporting operations. Shown in this example,

different reports may be generated in connection with assessments with selecting option 164a,

claims processing by selecting menu option 164b, unearned premium operations by selecting menu option 164c, and other functions by selecting the common functions menu option 164d.

5   Referring now to Figure 14, shown is a screen display 320 as may be displayed in connection with diary processing operations. In this example, the diary option 166 includes a single menu option 166a for opening a particular users diary in this example as described elsewhere herein, a user may be sent notification as to the occurrence or entry of a diary which requires his or her attention. In other words, diary entries may be created by a user and one or

10   more other users may be alerted or notified that their attention is required with regard to reviewing or examining a particular diary entry created by another user. Subsequently, when a user logs on for a particular user ID, they may receive notification messages that one or more diary entries have been entered which require their attention or review. A user may subsequently, after logging on, access the diary entries upon which they were notified as by

15   selecting menu option 166a. Diary entries as described elsewhere herein may be associated with one or more claims as well as an unearned premium entry. Diary entry creation may also be automated, as described also in more detail elsewhere herein.

      Referring now to Figure 16, shown is a screen display 322 that includes a subwindow or

20   a submenu screen display 324 that may be used in connection with performing administrative operations. It should be noted that the screen display 322 in one embodiment may be reached using items 1621 administrative options described in connection with other figures herein. The subwindow display 324 includes a list of users with an ID, a name and a status corresponding to

41

each of these users. This is displayed in Table 324a. As described elsewhere herein, different

roles may be assigned or associated with a particular user ID. In other words, by assigning roles,

a user is granted or restricted in terms of different operations or function data entry in the light

that they may perform. What will be described is a subsequent menu display, for example, in

5   connection with selecting the assigned role button 324d.

Referring now to Figure 17, shown is a screen display 326 with a subwindow or menu

330 may be displayed upon selecting the assigned roles button 324d. The subwindow 330

10   provides for the display of user roles available for a particular user, for example, as displayed on

the left-hand side in area 330a. The currently assigned user roles to date for the particular user

name entered in field 330b are displayed in the portion 330c of the screen. Additional user roles

may be assigned or deleted. For example, by selecting an available user role from the portion

330a, and selecting button 330d, an additional user role may be assigned and subsequently

15   displayed in the window portion 330c. Similarly, a role that is currently assigned to a user and

displayed in 330c may be deleted by selecting a particular user role from the screen portion 330c,

subsequently selecting button 330e, causing this user role assigned to be deleted and eliminated

from the screen portion 330c.

20   Shown in this example, different user roles that are available to the assigned or associated

to a particular user ID are accounting clerk, accounting manager, claims assistant manager,

claims clerk, senior claims clerk, unearned premium clerk and unknown or other types of

options. Different types of responsibility and operations may be performed in accordance with

42

different types of information or user roles selected. For example, different accounting

operations may be performed with different types of account user roles. A manager of any level

may perform or be allowed to perform different operations than a clerk. It should be noted that

being able to perform different administrative functions such as assigning user roles, granting

5   authority to different types of users may only be performed, for example, by a limited number of

users. In one embodiment, administrative functions such as this may only be performed by

system administrators or different types of managers.

Referring now to Figure 18, shown is a screen display 334 as may be displayed in

10   connection with performing administrative tasks in connection with different user accounts and

IDs. In this example, subwindows 336 and subsequently 338 may be displayed for example by

selecting the modified button 324c causing the subsequent display of window 338.

Referring now to Figure 19, shown is an example of an embodiment of a representation

15   of a system as may be used by an insolvency service provider to perform services described

herein in connection with other systems. In the representation 400, the system providing

insolvency services, for example, in managing property and casualty guaranty funds is described

elsewhere herein, for example, in connection with the system 10 of Figure 1. In Figure 19, this

system is referenced as CAPS(Claims, Assessments, Unearned Premium System) in element

20   402. As part of this system and described elsewhere herein, is an output file 408 produced by the

CAPS system that includes general ledger data entries. These entries may be referred to

elsewhere herein as GL entries and associated processing and menu items. In this example, the

data file entries 408 may be used as input to an accounting system 404. The format of the data

43

file 408 is in an input file format customized or used by the accounting system 404. The

format(s) may vary in accordance with each embodiment and systems. The CAPS system may

also produce as output other data files 410, in any one or more of a variety of formats, that may

be used as input into one or more other systems 406. In other words, just as CAPS may produce

5   an output file in a format particular for use by the accounting system 404, CAPS may also

produce other output files for use as input files by other systems 406.

Referring now to Figure 20, shown is an example of an illustration of one hierarchical

organization of insolvency funds or monies. The representation 420 represents a fund structure

10   of different accounts per state for which insolvency services may be performed. Additionally,

shown is a relationship between the different LOIs and the different funds or accounts per state.

In the representation 420, the element 422 represents the total of all insolvency monies or funds

managed by the system 10 of Figure 1 in connection with insolvencies. These monies 422 may

correspond to, or be dividable amongst, insolvencies managed for several states. Each state may

15   be represented by a state fund, such as one of 424a -424n. Within each state, different state

accounts may exist. Funds or monies corresponding to one or more LOI may be associated with

a particular account, such as one of 426a-426c. For example, Rhode Island (RI) may correspond

to state fund 424a and each of the accounts 426a-426c may correspond to one or more LOIs

within RI. In this example, state statute, rules , and regulations may require separate accountings

20   and fund management for each of the auto LOI, and the Worker's Compensation LOI. However,

one large "pot" or account may be managed for all other LOIs, for example, including

homeowner's insurance, inland marine insurance, and the like. Other state rules, regulations, and

statutes may require different organization and management of state funds. For example,

44

another state may require an individual account for each LOI, rather than, for example, permit an "all other funds" as 426c in RI. This alternative, for example, may be illustrated by the representation of state fund 424b, and associated accounts 428a-428n.

5   It should be noted that one or more UDS codes may be associated with one or more LOI. UDS codes are uniform codes that may be used throughout an industry, such as an insurance industry. Similarly, one or more NAIC codes as specified by the NAIC apply to each state. NAIC codes are those specified by the NAIC in accordance with NAIC format.

10   In one embodiment, for example as represented in 420 of Figure 20, the organization of funds, associated accounts, and the like may be specified in accordance with state statutes, rules and regulations. This organization may be established, for example, in connection with processing performed at step 102. As state particular information may change, such as a new statute, or an amendment to an existing statute, and the like, the organization and management of 15   funds may change. Additionally, any changes or additional rules, and the like that may affects calculations, for example, in connection with unearned premiums, and assessments, are reflected in the system 10. In other words, the design of the system 10 provides for customization in accordance with particular rules. Additionally, it provides a flexible system for easy updating to reflect such additions and amendments. Such functionality and processing in connection with 20   establishing and modifying information in connection with the foregoing may be performed by different processing modules as described in more detail elsewhere herein.

What will now be described are different functions as may be included in one embodiment of the system 10 of Figure 1. Any number of these functions may be performed in connection with modules, for example, described in the client and/or server modules, respectively, 14a and 12, and functionality also described elsewhere herein in connection with

5   menu and screen displays.

Notes processing and functionality may be performed in connection with claims and unearned premium processing. In one embodiment, a note may be created by using buttons included in an unearned premium and/or claims processing screen displays described elsewhere

10   herein. A note is created in one embodiment using a button located at the bottom of a screen of a CBN or a claim. Notes screens allow for the creation of general notes or specific notes annotating information for a claim, or a claimant. Notes are pieces of information explaining what the claim is about, how the claims is handled, a claim's progress, and the like in a free-form.

15

Generally, notes processing functionality allows users to enter claim information and unearned premium information in text format within the claim file. This functionality captures a majority of the information and data with respect to a claim so that any handler may pick the claim and understand history associated therewith. Functionality associated with notes

20   processing includes adding an unearned premium or claim note, modifying and inquiring as to the category of a claim note, duplicating a note from one claim or unearned premium to another, and generating a claim or unearned premium claim notes report. These functions may be implemented by each having a corresponding menu item with claims and/or unearned premiums

and/or report generation, and the like. An embodiment may also provide for sending a note for review by one or more other users, such as managers and the like.

In connection with a claim, a note may include particular information about a claim

5   including the date that this entry was made for this note, the claim number, the claimant number, the claimant name, the category of the type of claim such as disability, medical, etc., the reviewer ID, the user ID who entered it, and a text field for entering information about the claim. One or more notes may be displayed in a tabular or the type of arrangement and provide certain functions such as sorting in accordance with a particular column heading of information, as well

10   as reporting claims for reporting notes associated with a particular claim. Data entry for this and other types of information may be done in a form-like window and may be displayed once entered in the form of a table. Additionally, an embodiment may include a searching or querying function performing a search of notes in accordance with particular information and criteria, for example, such as by claimant, by category, user or reviewer, as well as a particular time period,

15   and the like.

An embodiment may include functionality in connection with making claim payments. The system 10 of Figure 1 may request a claim payment, set up a repetitive payment, modify a claim payment request, delete a claim payment request, reverse a claim payment and generate

20   payment reports as needed. Claim payment functionality may extend to all types of claims. Payment approval, setting reserve levels and check processing requirements may be captured in separate conceptual designs described elsewhere. Certain functions that are performed in connection with claim payments may include the ability to add a claim payment request, change

or inquire as to a particular claim payment request, delete a claim payment request, add a claim payment reversal, add repetitive payment requests, change repetitive payment requests and delete repetitive payment requests.

5   Additionally, an embodiment may also include the option of blocking a claim from issuing a payment. In one embodiment, a claim which is currently being worked on, may be open and displayed in window. A user may access a payment list option which results in a display of all the payments associated with a particular claim, as well as other information about each of these payments. Payment window displays may include options, such as in connection

10   with menu options and/or buttons, for creating, modifying, or inquiring about a particular payment.

        In terms of a user interface, the payments associated with a particular claim may be listed in tabular form or other type of arrangement. Subsequent to selecting a particular payment

15   from the window, certain information may be modified for a selected claim. For example, as a user interface may be displayed having different fields represented in a forms-like format with different data fields, for example, as described in connection with other data entry screen displays described elsewhere herein.

20   From the payments list window, as with the notes, additional functionality may be available, for example, such as sorting payments displayed by a particular field as well as performing certain actions with respect to a selected payment or payments from the list. In one

embodiment, a payments list may have the following columns in a display format for each

payment:

date that the payment was created, a claimant number, a payee name, a type of payment

being made such as for an expense, or a loss, a code related to the type of coverage provided, a

5   user ID as to the creator of the payment, a status with regard to the payment such as if it is

pending, paid, or approved, an amount and a check number as paid out for the specific payment,

as well as a date of a disability if one exists in connection with the payment.

The different options that may be performed with respect to a payment such as to view,

10   modify, delete, reverse payment, print and the like may each correspond to a particular button

displayed in accordance with the payments list window.

When selecting a payment, different types of modes may be used to access a particular

payment and the fields included and associated with a particular payment. When a user selects

15   an option, such as to view information, it may be displayed in one form as opposed to another

when a user wishes to add or modify a particular payment which may display the information in

a graphical user interface form like format rather than in a tabular form for example that may be

displayed when its only a read operation.

20   The details associated with a particular payment, such as in connection with a view,

modify, or add operation may differ from those items or particular fields displayed in connection

with, for example, a payment list option for each particular payment made. For example, when

displaying details of a payment in connection with a read or a modify operation, all fields which

may be viewed or modified may be displayed accordingly. This may include those fields as previously described in connection with the payment list window as well as additional information such as taxpayer ID since as this check should be reported to the federal government.

5

Portions of this claims processing payment may also be integrated and connected with other modules, such as in connection with initially entering information associated with a new tax ID number for a particular taxpayer record. In other words, when a payment is first entered or subsequently modified to enter a new tax ID, there may be a check to see whether there is an existing taxpayer record corresponding to this taxpayer ID. In the event that no existing taxpayer record exists in the system, another window interface may be displayed to the user to enter additional information in connection with the tax ID which may be stored in the database.

It should be noted that an embodiment may include a sub-hierarchy or organization of information associated with a particular payment. For example, this may be displayed by a particular window with different tabs that may be activated displaying different portions of the information stored in the database for a corresponding payment. In one embodiment for example, address information may be displayed as one subset of information associated with a payment. An embodiment may also include detailed information in connection with a particular payment such as different amounts paid out. An embodiment may also include general information in connection with a payment such as status and user. This may vary in accordance with each embodiment.

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Also associated with payments is a repetitive payment option which at the creation of a

single record for example may result in the generation of several number of payments that may

be generated automatically on a repetitive basis by the system. It should be noted that the

repetitive payment option may be selected as a button from the bottom of the payments list.

5   Functionality for reversing a payment reverses the effect of a payment and accordingly, adjusts

reserves, deductibles, and other operations. Additionally, a general ledger may be updated via a

direct right to the file for accounting purposes.

It should also be noted that different types of payments may only be allowed in

10   accordance with different security options, for example, in accordance with particular users or

particular authorization associated with a particular user of the system. In one embodiment,

payments for claims may be made using the payment button option included in a module screen

display, such as in connection with unearned premiums and claims.

15

An embodiment may include functionality for creating or modifying an existing taxpayer

and information as well as search for the set of taxpayer records based on certain selective

criteria. This functionality may be used, for example, in connection with generating state and/or

federal tax records, forms, and the like, such as tax form 1099 in payment to adjusters, lawyers,

20   and the like. It includes functionality for adding or modifying taxpayer information, searching

for a particular taxpayer or taxpayers in accordance with specified criteria, as well as generating

a taxpayer report.

Modification of taxpayer information and other types of functions associated with the taxpayer may be associated with different security rules such as only users from the accounting department may be authorized to modify a particular taxpayer record. This may be implemented using rules such as may be included in an SQL procedure. Information associated with a

5 particular taxpayer may include, for example, information as name, business name, a tax ID, an active or inactive status with regard to the database, as well as tax ID search results which identifies fields to be displayed in connection with a query performed which yields this record as part of the query search results.

10 One of the functions included in this type of modular may be a search option, for example, which may provide the user with the window within which certain criteria may be entered manually in a form like display. The search results may be displayed as described elsewhere herein for other options in a tabular format. At the bottom of the menu or display of a graphical user interface there may be buttons for example with particular options that may be

15 provided to a user in connection with a selected tax record for a particular tax ID.

In one example, a user may enter information such as to search for a particular business name or taxpayer person's name. Upon the selection of a search button which may cause a query to be performed on the database in accordance with the selected or entered information, one or

20 more records may be displayed as search results at the bottom of the screen. Subsequently, the user may select a record from the table corresponding to a taxpayers recorded information a user may further activate one of the buttons, as selecting by clicking with the right hand mouse button

52

on the bottom, to perform an operation, such as further viewing or modifying information or printing information associated with one or more selected records.

5   Different types of information may be included in connection with a particular taxpayer, such as whether a taxpayer entity is a corporation, a partnership, an individual or sole proprietorship and the like. Additional options may be associated with the taxpayer such as the particular IRS form or format and other information. Different views may as described elsewhere herein display different fields in particular formats for a particular taxpayer record. For example, where there is a read only or view mode, the information may be displayed in a

10   tabular form or in a forms like display with certain fields grayed out indicating that these fields may not be modified. For certain operations such as modify, a different type of display may be entered as well as additional fields that may be modified. In one embodiment, the option for creation and modification of taxpayer information may be reached using item 162f of Figure 12 as described in more detail elsewhere herein.

15

An embodiment may include payment approval functionality, for example, in connection with approving or rejecting issuance of a payment, and closing of, a claim or an unearned premium. The approval process provides managerial supervision for transactions over a certain

20   amount as well as insuring accuracy of payment and reserves. Certain functions associated with this task may include closing, claim approval, approving a payment request, approving the claim status change, approving a claim or unearned premium claim payment request, approving claim closure, as well as security associated with claims, unearned premiums and the like. In other

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words, payments as may be associated with unearned premiums or claims may not be paid unless they are approved. Such payment status, such as approved or unapproved, may be reflected in the field on the database as may be associated with a particular claim and/or payment. Claim approval functionality maybe implemented in accordance with standard audit rules involving the

5   recordation of specific information with regard to performing certain functions. This is described elsewhere herein in more detail.

There may be particular procedures, such as one or more SQL procedures, which implement the standard audit rules that may vary or change. In this particular system, payments

10   may require approval, for example, if over a certain dollar amount, or if being paid out to or by a particular party and the like. This may be implemented in accordance with certain security procedures. Thus, for example in one embodiment, any payments created over a particular threshold amount may appear in the approval list as pending. In terms of an implementation, a manager or other type of person with a particular ID or status may need to log onto the system,

15   view such items such as the payments and the approval list, and accordingly either approve these items or reject these items. Approval may also be acquired in connection with claims to be closed as well as unearned premiums to be paid out.

When claims are to be closed, they may be added to an approval list displayed in a

20   window for example and someone authorized logs on and approves the status being changed from pending to closed. If something is rejected for example there may be additional information entered as to why the closing is rejected. It should be noted that as associated with each of these functions and others described elsewhere herein, different options such as sorting

and other types of user interface details that may vary in accordance with each embodiment may also be added for each type of display.

An embodiment may include auditing functionality that may involve recording of

5   information in connection with particular transactions, operations, and the like, for example, such as in connection with approvals, modifying amounts on payments, and the like. Any changes to data could potentially affect payments the system 10 makes or has other make on its behalf. Thus it may be important to be able to trace information being added, deleted and/or modified with respect to various operations. Tracking changes allows managers to address questions

10   about changes directed to users who make them as well as track day to day user activity. Auditing also has a psychological effect preventing users from making unauthorized changes because they know someone will be tracking and monitoring what is done. Certain functions include providing detail about each type of reserve as well as a history of payments in accordance with particular claims, unearned premiums, users, and the like. Auditing reviews or

15   activity may occur and may be characterized into three different types: standard, historic, and detail in which information as to "who" and "when" may be recorded. The "who" may be represented as a user ID, and as security information as to "who" is logged onto the system. "When" be captured as date and time by the server rather than user or a client's computer system, such client's PC.

20

Different levels of auditing may be performed and set with regard to users logged on. This auditing may be specified, for example, per user, for a particular time period such as during the evening hours a higher or more detailed level of auditing may be set as well as if a particular

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level of authority is existed or associated with a particular user, then a higher level of auditing

may be performed. A first level of auditing is called standard auditing which includes

information on who created the record and when as well as who last modified a record and when.

This level of auditing may exist for virtually every table stored in the database. Historic auditing

5   may include information on who has ever modified a record and when. Tables requiring historic

auditing are specified within these documents. Detailed auditing includes information on all

those who have modified a record, when, the modification occurred and of data prior to a

modification. In one embodiment, for example, standard auditing may be provided by default

but the necessity for historic or detailed auditing may be specified in accordance with options

10   that may vary with each particular embodiment. Auditing may occur within the security module.

Auditing may be performed in connection with an administrative task operation, such as

may be available from a menu displaying different administrative operations. Approval

functionality as may be used in connection with claims and unearned premiums may be

15   permitted by role assignment or other security technique that may vary in an embodiment.

Similarly, functionality for reviewing payments in connection with unearned premiums, and

claims to be approved may be found in related menu operations, respectively, displayed

regarding unearned premiums and claims.

20   Particular payments that may require approval may vary in accordance with specified

criteria for each user, for example, in connection with different limits specified and associated

with each user, such as reserve limits, check writing authority limit, and the like.

Functionality may be included in an embodiment for data entry and operations associated with state funds and associated hierarchy described in more detail elsewhere. For example, these operations, including initial data entry and creation of state funds, may be performed in connection with processing operations available from the Member/State option from a menu bar

5   as described in connection with screen displays elsewhere herein. For this and other functionality included in an embodiment, the techniques used to actual invoke and perform these operations may vary in accordance with embodiment and its particular organization of operations as may be embodied in, for example, a menu hierarchy.

10   Operation in connection with state funds provides for capturing state fund information in order to process assessments, claims, and unearned premiums. A history of changes may be recorded with regard to a particular state fund. One embodiment provides for an associated with a particular state fund of up to seven insurance accounts as well as an assessment percent cap limit, an inactive date, and other information associated with each insurance account. Each of

15   these insurance accounts may correspond to, for example, elements 426a-426c described in connection with state fund 1 424a of 420 of Figure 20. Associated with each state fund, in an organization with tabs similarly described in connection with other screen displays, may be information related to general account information, assessment information, code information for the different accounts, and unearned premium information. For example, in connection with

20   assessment information in one embodiment, one may specify varying gross assessment transaction kinds, such as, for example, regular, reversal, taking, borrowing. When entering state fund information, a choice of three law specific processes may be specified to drive adjustments to net written premium information or required reporting to members. Categories may include,

HWD2 853264v2

for example, five-year average, certificates of contribution and state of domicile rule, and others that may vary in accordance with state statute. In other words, different menu options may exist for different methods of assessments, and the like, and a user may select one or more as may vary in accordance with state funds, and the like. There may be additional information to

5   capture the five year average to account for run-off premium and certificates of contribution as well as the number of years for amortization.

An embodiment may also provide for certain users to perform administrative tasks in connection with maintaining a state fund, for example, viewing and maintaining lines of

10   insurance and account designations, and the like.

Functionality may be included to add a state fund requirement, to change/inquire as to a state fund requirement, to close a state fund requirement, to add a state fund insurance account

15   requirement as well as inquire or close a state fund insurance account requirement. For each particular state, included is the ability to maintain such as add, modify and enter initially a state fund as well as state law information, assessment, base year information, administrative assessment information, state insurance accounts as well as assessment percent cap and state lines of insurance designation. Associated with a particular state fund may be general

20   information such as name and address. Additionally displayed may be one or more insurance accounts.

It should be noted each of the different techniques that may be used in performing an assessment for example may be implemented in rules specific to that particular technique. In one embodiment, the different rules may be included in different procedures such as those in an SQL procedure.

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An embodiment may include the functionality to add new insurance accounts and modifying an existing insurance account as may be associated with a particular state fund. In one embodiment, an insurance account may correspond, for example, to each of 426a-426c in 420 of Figure 20. The insurance accounts may be activated from the state fund window in which different insurance accounts are opened and associated with a particular state fund. Options provided may include opening and modifying information in connection with an insurance account. Information associated with an insurance account may include date information as to the activity of account.

15 An embodiment may include functionality to add and maintain member and insolvency information in connection with assessments, claims and unearned premium claims processing. Information for a member may include, for example, the address and other information associated with an insurance company. Members may be added, for example, to one or more state funds. Included as part of the functionality is the ability to add as well as inquire

20 information about a particular member. Searches may be performed in connection with information about a particular member from all of the members included in a database as well as adding additional information as to members such as state information, administrative assessment information, liquidation information and other types of insolvency information.

There are different levels of security and audits that may be performed in connection with members. For example, there may be an assessment, claims, and unearned premium security as well as audits performed at the different levels such as historic detail and the like. A member may be associated with a group, such as in connection with a group named field.

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Different types of security may be associated with adding a member or changing information about a member such as the group. For example, only an accounting manager or clerk or other member of the accounting department may be able to perform certain types of functions such as payment of administrative fees, and other types of options including withdrawing or adding a member to a state fund as well as adding a member to a state fund's insurance account.

Different options may also be included in an embodiment with regard to different members, such as the ability to combine member information with a primary and other members under it, as well as a split member option. This is described elsewhere herein in connection with splitting of a member, or acquisition or merging of insurance members and other entities as may be described in the database of the system 10. The combined members option may enable the user to reflect merging in acquiring activities that may exist for more than one insurance company allowing the insolvency insurance provider to send one assessment statement for two or more members.

Associated with each insolvent member is information that may vary in accordance with each member such as the reporting frequency, as well as status information and additional

information as to liquidator. In accordance with an associated insolvency mode for each member of a state fund may be a trigger date used for all claims in which the trigger date is always greater than or later in time than the insolvency date. Different status may be associated with a member, for example, indicating whether a member is solvent or insolvent.

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Functionality may be included in an embodiment to add and modify liquidator information. In one embodiment, this functionality is associated with item 162e described in connection with other figures elsewhere herein. Information may be maintained on two different types of liquidators, operational and statutory. A statutory liquidator is one that is appointed by a court to handle the liquidation of an insolvency who is normally the commissioner of insurance for the state in which insolvency has occurred. The operational liquidator may be assigned by the statutory liquidator to handle the day-to-day liquidation questions and issues that, for example, operators and managers of this system described herein as provider of the insolvency services may have. In other words, the operational liquidator may serve as an interface or source of information for a provider of services in connection with the insolvency.

An embodiment may include function for entering and maintaining operational and statutory liquidator information once a member has been declared insolvent. Various operations may be provided with respect to a liquidator such as adding a new liquidator and information associated therewith as well as modifying information associated with a particular liquidator and searching or clearing the database with regard to certain information that may be included in a liquidator record.

An embodiment may include functionality for adding lines of insurance (LOIs) and performing additional tasks in connection with existing lines of insurance, such as, for example, modifying an deleting one of more LOI. As described elsewhere herein, an LOI or line of insurance, for example, may be worker's compensation, commercial auto, fire, homeowners and

5   the like in which each of the foregoing correspond to a different line or a different type of insurance business. In this particular example, a line of insurance is one of the different types of insurance that may be associated with a claim as well as other aspects of the foregoing.

One embodiment may include a standard type of error handling providing for a standard

10   "look and feel" for errors that may be generated in the system 10 of Figure 1. The system 10 of Figure 1 may generate different types of errors in accordance with different types of processing operations. For example, front end errors in this example may be associated with the GUI application, such as the client software that may include menu display operations. Back end processing errors may be associated with database access types of errors, such as may be issued

15   by the particular database package. Other embodiments may include different types and categories of errors and display different message formats accordingly.

A global error handling facility, as may be included in the data storage system 12, may receive all errors occurring within the system 10 for all operations performed, including front

20   end, back end and other errors.

The error handler portion of this may display an error message to the user and/or generate an error log file at the host site. Additionally, an embodiment may also send information to the

server portion of the application. It should be noted that as an administrative function, for

example, there may be provided the capability for different types of users to be able to examine

different types of entries made in a log file for example on a client's working or host system

from the server such as in administrating the system. The occurrence of certain errors, such as

5   internal errors, for example, in connection with performing a database operation, may be made to

the database administrator.

An embodiment may use any one or more of a variety of techniques in connection with

storing and organizing data in the system 10 of Figure 1. In one embodiment, a relational

10   database organization may be used. As known to those skilled in the art, any one or more of a

variety of commercially available database packages may be used in connection with creating,

maintaining, and performing database operations.

Different methods may be used in accessing a relational database including data access

15   objects, remote data objects, Active-X data objects each having methods for accessing a database

in accordance with each of the different types of objects. Each of these three different methods

may be used in accordance with the different types of system details.

One embodiment uses Active-X data objects, for example, as may be included and used

20   in Microsoft operating system and software. Stored procedures or direct SQL operations may be

used in performing data retrieval using any of the foregoing database connectivity methods. One

embodiment uses stored procedures rather than direct SQL statement execution to reduce

runtime processing. As known to one of ordinary skill in the art, when direct SQL statements are

executed, they may be interpreted by an SQL server and executed. The SQL engine may also

process a stored procedure from SQL which is converted into a "compiled" form eliminating the

translation step when the procedure is run. In other words, running direct SQL statements

requires the combination of traditionally performing a complete translation and execution of the

5   procedures. Alternatively, creating a stored procedure in SQL provides for a translation into an

intermediate form which may subsequently be executed more than once. The execution of a

stored procedure in cache or in a memory type of storage for compiled SQL code may improve

system performance.

10   Functionality may be included in an embodiment providing for security, such as the

security module 34a. In one embodiment, a security module contains the functionality for

adding a user, modifying characteristics or other information stored about a user, and assigning

security roles associated with a particular user. The accounting manager, claims manager, and

unearned premiums manager are different types of roles which have the ability to assign user

15   access to the system.

In one embodiment, different types of account creation may be permitted by other users.

For example, a user I.D. associated with a certain level of security or permissions associated with

an accounting manager or claims manager may be allowed to create a user with other certain

20   capabilities. In another embodiment, only one person the database administrator is allowed to

create a user I.D. in the system. In other words, rather than associate the capability of creating a

new user with particular capabilities and associating this type of permission with an I.D. or level

of security, only the database administrator or administrators are allowed to create a user I.D. in

64

the system. Thus, an accounting manager, claims manager and the like may notify the database administrator that a user account needs to be created.

The number of layers or tiers in each security hierarchy as well as the associated

5   permissions and securities associated with a particular I.D. that may be created may vary in accordance with each embodiment. For example, in one implementation, there may be a two tier type of user in which there is an administrator and all others. However, associated with all others may be different types of accesses or permissions that are allowed. Similarly, different types of user I.D.s or associated securities associated with a particular I.D. may have the ability

10   to perform certain functions in addition to creating a new user, such as modifying a user and assigning particular roles to a user.

In connection with creating a new user account, user I.D. information may be entered through a graphical user interface and accordingly, a user I.D. record may be included and stored

15   in the database as part of an accounting procedures allowing certain users with a user I.D. that may be entered to allow access initially to any information stored in the database. This is generally known in the art and is similar to other types of password mechanisms. In one embodiment, information that may be recorded for a particular user includes first and last name, user I.D. and user status which may be set to active or inactive as an account may be enabled or

20   disabled.

In connection with the option of modifying a user and functions associated therewith, different information associated with a user may be entered in accordance with a particular user I.D. and stored in the database.

5   As described elsewhere herein in connection with screen displays, different roles may be assigned to users. In one embodiment, the available user roles may include an accounting manager, an accounting clerk, a claims manager, a claims assistant manager, a claims handler, a claims handler assistant, a senior claims clerk, a claims clerk, an unearned premiums manager, an unearned premiums claims handler, and an unearned premiums clerk. Each of these roles

10   accordingly allows and provides a user with particular types of access and options. In other words, if a role is related to unearned premiums such as an unearned premiums clerk, such a person with solely the unearned premiums clerk assigned role may be unable to access information stored in the claims or accounting modules in performing the job function. It should be noted that an embodiment may allow the selection of one or more assigned user roles from the

15   list.

Functionality may be included in an embodiment for mapping Uniform Data Standard (UDS) code to NAIC line of insurances as well as provide various administrative operations in connection with codes such as removing, modifying and deleting a coverage. Generally,

20   software within this module provides the ability to use UDS coverages and codes within their own database in order to utilize industry standards. In other words, UDS codes are those standard codes used in the insurance industry. These may be mapped to the NAIC/LOI codes.

The UDS mapping conceptual design has security and audit rules. In one embodiment, this functionality may be available in connection with item 1621 described elsewhere herein.

In order to map a NAIC line of insurance to uniform data standard coverages, as well as

5   other operations in connection with UDS coverage codes, in one embodiment, a user may access the UDS mapping window and identify accordingly as needed particularly UDS coverages and NAIC LOI codes to be mapped.

For example, in one embodiment, a particular UDS coverage code may be mapped to a

10   selected single NAIC LOI code. Once a UDS coverage is mapped to a particular NAIC LOI, it cannot be mapped to another NAIC LOI. In one embodiment, claims managers may be allowed to perform this functionality in accordance with security requirements. Similarly, different types of roles may be required to be associated with a particular user I.D. in accordance with security requirements to perform other operations such as remove UDS coverage, add or modify or delete

15   UDS coverage.

An embodiment may include functionality to add an agent to an insolvency, modify any agent, view an agent and delete an agent. One or more agents may be associated with a particular insurance company that is an insolvent member.

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For example, an insolvent insurance company called ACME Insurance Company may have John Smith Insurance Agency as well as the Joyce Brown Agency. Included in the agent list may be an entry for each of them associated with the particular insurance company. Each of

67

the different agents or group of agents may be associated with a particular insolvency selected. As with other functions described herein, different types of user roles or accesses may be required to perform particular operations in connection with an agent. For example, claims managers and/or types of managers may be the only ones authorized as well as senior clerks to

5   modify or add an agent. There may be no security restrictions on viewing agent information. Other conditions may exist in order for an operation such as deleting an agent and information to be performed. For example, an agent may not be deleted if the agent is attached to a claim or a policy. In other words, there may be dependencies in addition to user roles which restrict the type of functions and when they may be performed.

10

An embodiment may include functionality for tracking file location of each claim file. This relates to recording the physical location of a file, such as building, city, state, floor, shelf, and the like. An embodiment may include functionality, for example, in connection with entering claim information, related to file location information. An embodiment may include the

15   ability to add a new file location as well as view an existing file location modify and delete a file location.

This file location function may be used in connection with efficiently tracking paper claim files. In the process of insolvency of an insurance company, the system keeps a record of

20   the location of the actual paper files that may be received from a liquidator in connection with an insolvency. The actual location of this paper file is indicated by the file location as to where the paper copy of the claim resides that has been received. It should be noted that as the number of file locations increases, this may impact the speed at which a file location window opens since it

holds all of those files for example in the display. This module includes techniques providing

access to the file location window that is automatically populated from the database with a list of

all of the file locations of all existing claims within the system. Additionally, file location

information and associated processing may allow a user to create, modify, delete, view, print,

5   and the like with regard to file location information.

In one embodiment, each file location in this embodiment has a file location code, and

accompanying description name and address allowing the system to track the physical location

of each claim file. Adding a new file location is functionality that may be performed only by a

10   claims manager, a claims assistant manager and unearned premiums manager. In connecting

with viewing an existing file location, this operation may be performed by all users since it is for

example read only. Similar access and user role security information may be required to modify

an existing file location. To delete an existing file location, only the claims and unearned

premiums manager may be allowed to perform these operations in one embodiment. Read only

15   operations that may be additionally included such as printing file location master lists may be

provided for use by all users.

In one embodiment, attributes in connection with file location detailed information

includes a physical address of where the file may be stored including the name, street address,

20   city, state and the like as well as a physical location description textually describing where the

file may be stored. Functionality for file location may be accessed and used in connection with

claims processing as well as unearned premiums.

69

An embodiment may include functionality allowing a user to add a new claim handler

and modify a claim handler limit. Generally, a user may be assigned a role as a claim handler or

unearned premium handler. In other words, to become a claim handler or unearned premium

handler, a user I.D. may first be created and entered with the appropriate security role defined for

5　example as a claim handler or an unearned premium handler. A list of claim handlers may be

displayed for example by selecting an option from a claim handler window. This may display

the list of all those claim handlers such as those assigned with a particular security role of claim

handler or unearned premium handler in the window. Information that may be displayed for

example includes the handlers user I.D., name, as well as associated information for the

10　particular claim handler or unearned premium handler. For example, in connection with a claim

handler, information that may also be displayed and of importance is the claim loss limit per

check, the claim loss limit per claimant, the claim expense limit per check, the claim expense

limit per claimant, the reserve loss increment limit, the reserve expense increment limit, the

reserve loss aggregate limit per claimant, and the reserve expense aggregate limit per claimant.

15

In connection with an unearned premium claim handler additionally, if this claim handler

may handle unearned premiums, they may each include additional information and limits such as

the unearned premium limit per check and the unearned premium limit per claim. Each of the

foregoing limits for example may be associated with different types of transactions that a claim

20　handler or unearned premium handler may encounter in their assignments. The functionality of

adding a new claim handler associated limit information may be performed for example for

security reasons only by claims managers and unearned premium managers. Similarly,

information associated with claim handler information may only be performed by the claims

manager and unearned premium manager. In this instance due to the confidentiality as to the limits associated with each claim handler and unearned premium handler, the functionality or viewing or printing information may not be accessible by all users. For example in one embodiment, the functionality for printing a claim handler master listing report may only be

5   performed by a claims manager, a claims assistant manager, a claims handler, a claims clerk, and an unearned premium manager, unearned premium handler or unearned premium clerk.

Functionality may be included in an embodiment for adding and maintaining database information in connection with the different types of codes that may be included in an

10   embodiment. Additionally, an embodiment may include the ability to map or associate different types of codes with other codes, for example, such UDS codes and NAIC/LOI codes. Generally, an embodiment may include functionality for adding new codes and descriptions for assessments, claims, and unearned premium processing. In one embodiment, addition and maintenance operations, for example, as may be performed in connection with code information

15   may be performed only by claim managers, claim assistant managers, unearned premium managers and accounting managers.

Code lists in this example may be used in connection with the status of different types of items. For example, the category of codes that may be displayed in connection with a claim

20   status would list all of the code possibilities that are valid for the claim status field in connection with other records described herein. If a different category of code is selected, a different set of corresponding codes may be displayed. The exact code list categories as well as the codes within a particular category may vary with each particular embodiment.

71

An embodiment may include functionality to enable recovery of either an unearned

premium or a claim. This module may provide for entry and recordation of claim recovery

information to insure accurate, up-to-date recoveries of claims in the general ledger as may be

5   used in connection with the accounting system. In one embodiment, the claim recovery process

and information window may only be accessible by users with security or roles in accordance

with a claims manager, a claims assistant manager, and a claims clerk. Similarly, for unearned

premium recovery information, this may only be accessible in one embodiment by an unearned

premium manager. Information as may be related to recovery, for example, in connection with a

10   claim, may include monies obtained from a legal judgment, salvage, and the like.

As for other types of functionality described herein, the security and associated roles

required to perform operations such as this may vary in accordance with each particular

embodiment.

15

In connection with one embodiment, information in a recovery window may be pre-filled

with default information, for example, in connection with a claim such as the state fund,

insolvency, policy number, claim number, date of loss, insured, and the like. Similarly, default

or pre-filled information may be displayed in connection with unearned premiums with an

20   unearned premium recovery being entered such as state fund, insolvency, policy number, who

the insured is and the like. The different types of recovery that may be included in an

embodiment may include, for example, salvage, net worth, COLA, second injury fund,

subrogation, and the like.

72

In this embodiment, a warning may be given if the net amount exceeds an amount of payment for this claim. This may be expressed, for example, as the total amount of payments minus the total amount of reversals, minus the total amount of recoveries. If this amount is greater than or equal to the recovery amount, a warning may be issued to a user. A similar warning may be issued for an unearned premium recovery amount where the recovery of a given claim in which the net amount exceeds the amount of payment for this unearned premium. In one embodiment, this functionality may be reached from item 262b of a screen display such as described in connection with Figure 7B elsewhere herein.

Functionality may be included in an embodiment in connection with unearned premium data entry and operations. In one embodiment, the unearned premium module may allow the user to enter an unearned premium policy, search for a particular policy as well as modify, delete, pay, reverse, and close an unearned premium policy. Functionality associated with an unearned premium processing may include entering policy information, issuing payments, generating reports and the like.

In one embodiment, the unearned premium module data entry functionality may be performed by unearned premium clerks, unearned premium handlers, and unearned premium managers. Information in accordance with an unearned premium policy may include, for example, the associated state fund, the particular insolvency, who the insured(s) are as well as certain policy information. On entering an unearned premium policy, certain steps may be performed in one embodiment. First, the user enters the policy information, such as insured

73

information, premium information, and saves the information causing the general ledger to be

updated with the reserve amount.

In connection with an unearned premium policy, an embodiment may include

5   functionality for performing different types of queries or searches performed in accordance with

different types of search criteria ,such as, for example, in accordance with state fund information

and insolvency code as well as insured name and policy number.

Unearned premium policy information may also be modified. However, this

10   functionality may be restricted to be performed by role or security access associated with

unearned premium clerks, unearned premium handlers and unearned premium managers. The

function of the entering unearned premium policy information in this embodiment may be

performed only by unearned premium roles.

15   The function of paying an unearned premium policy may be performed by unearned

premium handlers and unearned premium managers. In one embodiment, the user may select the

unearned premium calculation display and activate a pay button that generates a payment and

check for the unearned premium amount of the current policy. Accordingly, status and other

information may be updated in the database and as displayed in the various windows and screen

20   displays.

The function of reversing an unearned premium payment may be performed only by

unearned premium managers in one embodiment. Reversing a selected check, for example, may

be performed by selecting a function such as from a pull down menu or button from a graphical user interface display. This may vary in accordance with each particular embodiment, operations such as reversing a payment may affect other things such as the general ledger. In connection with an unearned premium policy may be the function associated with premium calculation tab.

5   It should be noted that the amount of an unearned premium may be calculated in connection with the amounts paid to date as well as pro-rating a premium in accordance with the number of days a policy is in force on a daily rate. Different rules may also be applied in connection with deductible amounts that may vary with state. For example, for states such as Virginia, an amount of a state deductible may be a flat rate such as $50.00 or as in contrast other states such

10   as Connecticut may have a deductible based on the percentage of the unearned premium to be paid.

What will now be described is additional functionality that may be include in an embodiment in the claims processing module. It should be noted that other embodiments may

15   vary in accordance to what functionality may be included in connection with claims processing functionality. The precise functionality included in each embodiment may vary in accordance with different requirements of a particular implementation.

One embodiment of the claims processing module includes functionality to map and

20   unmap a code coverage to an insolvency. Mapped code coverages may be assigned to a claim. An example is described in more detail in connection with Figure 21.

One embodiment of a claims processing module may also include functionality for managing a claim as well as initially creating a claim. Functionality that may be available for managing a claim may include, for example, amending or modifying fields of a claim, deleting a claim, adding a partial record which will become a claim at some later point in connection with

5   additional information as obtained, adding a claimant, modifying a claimant, searching for a claimant in accordance with user entered criteria, and printing a claim report and closing a claim.

Functionality may also be included in an embodiment in connection with claim coverage information. This may include adding a new claimant, modifying an existing claimant, adding

10   new coverage information as well as amending or modifying coverage information, entering an initial reserve amount, and modifying an existing reserve. Generally, as described elsewhere herein an initial reserve as well as an existing reserve refers to an amount that may be associated with a claim in connection with amounts to be paid with respect to a claim. As an analogy, this is an estimate as to the amount of monies to be paid out from the funds described elsewhere

15   herein.

An embodiment of the claims processing module may include functionality for viewing claim totals in accordance with coverage and/or claimant information. An example as may be included in one embodiment is described in more detail in connection with Figures 22-23.

20   Different types of claims may also be included in the claims processing module including those associated with toxic waste claims, for example, as may be involved in the clean-up effort. Functionality may be included in an embodiment of the claims processing module to perform different administrative functions in connection with toxic site claims including adding,

modifying and deleting information in accordance with a toxic site. An embodiment of the claims processing module may include functionality for diary entries but these are described elsewhere in more detail herein. Generally, the diary management includes functionality such as viewing a list of diary entries, searching for a diary entry, creating a new diary entry, modifying

5   or amending an existing diary entry as well as deleting a diary entry. Additionally, as described in more detail also herein, the diary function may also include an alert or notification process by which one or more different users may be notified by another user as to the existence of a particular diary entry for them to review or examine. Diary entries may be associated with claims as in this example. As also described herein, an embodiment may include the diary

10   function integrated into the unearned premium module as well as other types of modules included in the system.

Also included in the claims processing module is service provider and pay functionality allowing the system to handle contacts and taxpayers. It may include functionality to perform

15   administrative functions in connection with this option such as adding, modifying, and searching for a payee or a particular provider by type as well as report generation.

In connection with handling insolvency coverage mapping, functionality may be included in an embodiment of the claims processing module providing form mapping and unmapping a

20   code coverage to and from a particular insolvency. Functionality included in this module may provide for adding as well as modifying, deleting information associated with an insolvency line and coverage information. In one embodiment, this type of functionality provided in connection

77

with specifying UDS coverage codes. An example of a screen display as may be included in one

embodiment is described in more detail in connection with Figure 21.

Referring back to Figure 20, associating one or more UDS code coverages with a

5   particular insurance account assigns one or more UDS coverages and associates them with a

particular account such as 426a or 426b in the like in the representation 420 of Figure 20.

Functionality may also be included in the embodiment to enter, modify, or delete a claim.

Additionally, partial claim information may be entered in connection with what has been termed

10   a CBN as described elsewhere herein. The CBN functionality may have multiple uses. An

example may be when only partial information is available for a claim being created, a partial

claim as a CBN record may be created and when all of the information has been obtained, they

have a corresponding status changed from "CBN" to "claim".

15   Functionality for adding a claim may be restricted to different types of roles such as i a

claim clerk, senior claim clerk, claim handler assistant, claim handlers, and claim assistant

managers as well as claim managers. Other embodiments may restrict access or certain

functions as described herein to different types of roles in accordance to this embodiment. It

should also be noted that other associated functionalities such as in connection with modifying or

20   amending claim information may be similarly restricted to the same personnel. As described

elsewhere herein also in connection with modifying the claim information, detailed audit may be

enabled in an embodiment such as to track what fields are modified and their before and after

values as well as who is the user that is modifying the different fields.

Deleting claims entered in error may be restricted in one embodiment to claim managers only. As described elsewhere herein, an embodiment may also include an option for entering partial claim information. In one embodiment, this is indicated in the status field of a claim.

5   Functionality for adding partial claim information may be performed by all types of users in this system. This partial information status is indicated as a CBN as distinguished from a claim status which has a number of different specified and required fields. For example, with a CBN, only information about the insurers last name and claimants name and policy number may be entered. Other embodiments may also vary the minimum information required for entering a

10   partial claim or CBN as well as with entering information for a full-fledged claim.

In one embodiment, a partial claim or CBN may be converted to a full claim when all of the necessary and required information has been obtained, for example. The functionality of converting the CBN status may be performed by claim handling personnel, for example, as

15   previously described in connection with functionality for adding and modifying claims.

Functionality may also be included in an embodiment for adding one or more claimants as well as modifying information associated with a claimant. An example of a claimant is someone making a claim with respect to an insurance policy. An embodiment may also include

20   the capability or functionality for searching for a claim in accordance with desired search criteria may include, for example, a claim number or partial claim number, claimant information such as claimant name or company, insured information, different types of code coverages, date of loss, state fund association, insolvency number, related claim and partial information thereof as well

as policy number or partial information thereof. In other words, where ever partial information

has been indicated rather than be required to enter a full numerical or alpha numerical field of

information, a wild card or other type of information may be entered in accordance with entering

part of the actual field value. In performing a search, certain required information may be

5   needed to perform a search, such as one of the following: claim number, claimant name, insured

name, date of loss, policy number, and the like. In other words, although a user may search in

accordance with a variety of different fields and partial values thereof a minimal amount of

information may be required to perform an inquiry or search of the database. This may vary in

accordance with particular information stored in the database as well as the implementation

10   details.

Additional functionality may be associated with a claim such as printing a claim report.

The functionality of closing a claim may be restricted to different types of claim personnel. In

one embodiment, the issues or roles may correspond to those such as managers or senior claims

15   clerks or claim handlers and may vary in accordance with each embodiment. More detail as to

fields included in one embodiment when entering a claim are explained in more detail herein and

associated with other figures.

An embodiment as part of its claim processing may also include information for entering

20   and modifying a claimant, entering and modifying information regarding coverage and entering

or modifying information in connection with the reserve of the particular claim. It should be

noted that certain types of functionality such as adding or modifying an amount per reserve may

cause another action to be taken with regard to another system. For example, when the user

enters or adjusts a reserve, a posting is made to the general ledger file as described elsewhere herein for making an entry in connection with the accounting system. When a user also enters or adjusts a reserve amount above a users preset reserve aggregate or increment limit, then a diary may be sent to a claim manager for review as a form of notification or alert.

5

An embodiment may include functionality associated with claims processing for adding a new claimant as well as modifying information about an existing claimant. This type of functionality as well as those other types herein may be restricted to particular roles such as claim clerks, managers and the like. An embodiment may also include functionality for adding a

10 new coverage, deleting an existing coverage as well as entering an initial reserve and modifying an existing reserve.

In connection with entering and modifying a reserve amount, amounts may be posted accordingly in a general ledger with an initial reserve amount or a reserve adjustment. Reserves

15 entered which are greater than a user's preset reserve or increment limit or aggregate limit, a diary is sent to a claim manager. As described elsewhere herein, a diary entry may be sent to a manager as part of an automated process when the aggregate reserve amount or the increment exceeds a user's authority or limits assigned, for example, in accordance with particular user role for particular user ID. Subsequently, when the manager such as the claims manager, logs onto

20 the system with his or her user ID, a message may be displayed on the manager's diary notifying the claim manager of the existence of a diary entry that the manager needs to review. In the embodiment for the claimant associated with detailed information may be information regarding the coverage or the reserve associated with this particular claimant. There may be a breakdown

in terms of expenses and losses that are paid out and may be noted respectively as an expense reserve and a loss reserve. Additionally, in connection with claimant information, more detail may be included with regard to the claimant's injuries and the like. For example, there may be an indication to which body part or body parts have been injured to the claimant as well as the

5   different types of injuries for the corresponding part or parts.

Different calculations may be included in an embodiment with regard to claims. In other words, total amounts paid out may be viewed by claim, claimant as well as coverage type. Other types of calculations that may be included and associated with the claim may include the total

10   loss paid, the total expenses paid, the total recovery received in accordance with coverage. Similarly, different totals may be made with respect to or viewed with respect to a particular claimant, in claim.

An embodiment may include the ability to track claims in connection with a toxic site.

15   Functionality may be included in an embodiment to add, modify and delete the information associated with the toxic site. In one embodiment, the toxic site, is first created or entered before it may be attached or associated with the claim. Toxic site information being added for the first time or modified may be performed in one embodiment by only claim managers or assistant claim managers having the appropriate security permissions. Similarly, deleting the toxic site

20   and information associated therewith may similarly be performed by user roles such as different managers with the appropriate security permissions. Information that may be included in connection with a toxic site may include an identifier as to a particular type of toxic site, for example, such as an "EPA" type.

What will now be described in connection with Figures 21-24 are examples of screen

displays as may be included in an embodiment in connection with functionality provided for use

with claims processing operations and other modules, such as unearned premiums, and the like.

5   For example, in one embodiment, the screen displays included in Figures 21-24 may be reached

directly or indirectly from the claims processing menu.

Referring now to Figure 21, shown is an example of an embodiment of a screen display

500 that may be displayed in connection with mapping different coverage codes with different

10   insurance accounts. Shown is information that may be included in a top portion 504 of the

screen 500 which includes information describing the insolvency, state fund, and particular

insurance account. In this example, "Johnson Mutual Insurance Company" is identified as being

insolvent and wrote "auto" policies for the state of New Hampshire (NH). Included in the

bottom portion of the screen is a list of coverages 502 that may be mapped or selected and

15   associated with this particular insolvency. For example, different types of coverages for which

claims and the like may be paid out in connection with this particular account include

commercial auto liability for different coverages such as uninsured motorist, personal injury

protection as well as medical payments. The mapping and unmapping of a particular coverage

code being associated with a particular insolvency displayed in the area 504 may be done, for

20   example, by selection of a button 506a at the bottom portion of the screen.

Referring now to Figure 22, shown is an example of an embodiment of a screen display

510 that may be used in connection with displaying information for particular claimant and the

totals associated with this particular claimant. Different types of expenses that are totaled

include: total loss reserves, loss paid, loss pending, as well as different expenses and recoveries.

In this example, claim information is displayed in the portion of the screen 514. Also

5   shown under the claimant tab is a particular claimant 512 and in the different coverages as

identified in the coverage list 516 for this particular claimant. In other words, this particular

display of information shows for this particular claimant identified in field 512 the different

types of expenses paid out for the different types of coverages as well as the amount which has

been reserved or estimated with regard to this particular claim.

10

Referring now to Figure 23, shown is an example of an embodiment of screen display

520 that may be used in connection with displaying totals in accordance with a particular type of

coverage. In this example, information for the claim identified in the upper portion 522 may

have totals associated with claim calculations displayed in accordance with a particular coverage

15   identified in field 524. In other words, rather than list a particular claimant and associate a

coverage as shown in connection with Figure 22, this display of information shows the particular

totals displayed for all claimants for a particular type of coverage.

Referring now to Figure 24, shown is an example of a screen display 530 that may be

20   used in connection with diary entries. In particular, the screen display 530 may be displayed in

the form of a window or graphical user interface to a user, for example, in connection with

creating a diary entry of a particular claim. In this example, a diary entry is created or generated

when a new claim is entered. Information as included in portion 532 of screen 530 may be

automatically prefilled in the window and obtained, for example, from the claim corresponding

to this particular diary entry. The comment field 534 may include information such as a new

claim and other types of facts identifying this particular diary entry and the associated claim.

Additionally, in field 535a, the user may select one or more reviewers for which this diary entry

5   is reviewed by. Additionally, a review date as indicated in field 535b may indicate a date upon

which this diary entry must be reviewed. The review date may indicate a date upon which this

diary entry may send notification to the different reviewers indicated in field 535a.

It should be noted that a new diary entry, for example, may be created and viewed by

10   managers or other users, such as may be indicated by the reviewer ID field in the display of

Figure 24. This field and the values included therein are selectable by the creator of the diary

entry. It should be noted that in the example of the screen display Figure 24, this diary entry, for

example, may be created for a new claim such as indicated by the comments field. Similarly, an

embodiment may include functionality for creating a diary entry associated with a new unearned

15   premium.

In one embodiment, the screen display for entering information for the diary detail

information includes the same fields as in Figure 24 associated with the claim. However, the

comment field may include different data, for example, such as rather than stating "new claim"

20   may rather include "new unearned premium" as the type of description.

It should be noted that at the bottom of the screen display is the diary history list 536

which in this example appears currently empty. Subsequently, the history 536 may be updated

85

as a diary entry is later modified or updated. It should be noted that certain fields such as the review date may be calculated automatically and/or prefilled in accordance with details that may vary in accordance with each embodiment.

5   As described elsewhere herein, for other types of subsystems, diary entries may be created automatically when certain changes are performed. What will now be described are the trigger events that may be included in one embodiment for automatically creating and generating a diary entry.

10   As described elsewhere herein, the claims processing module as well as, for example, the unearned premiums module may include functionality for one or more associated diary entries. Diary entries may be created manually as well as generated automatically, for example, in accordance with sending an alert or notification message in accordance with predetermined criteria, such as reserve amounts being exceeded in connection with a particular claim by a user.

15

One embodiment may include functionality for creating a diary entry, searching or querying for a particular diary entry or entries in accordance with predetermined criteria, as well as modifying a particular diary entry. Another use for a diary entry in terms of an automated process or generation, for example, may be in connection with a claim that goes untouched for a

20   particular period of time. Accordingly, for a claim that has had no entries or actions within a particular period of time, a message or diary entry may be generated and sent to one or more people or users such as different types of managers, agents and the like associated with a particular claim.

As described elsewhere herein in more detail in connection with other screen displays, diary list functionality may be available and invoked by a button on a toolbar or menu item. Search and modification of the diary entry functionality may also be included on the diary list

5 window, for example, for use within claim and unearned premium systems. Accordingly, there may be a link such as a button in connection with a claim or an unearned premium as well. Within the claims processing module, diary functionality may be included in an embodiment for partial claims or CBNs as well as actual claims.

10 In one embodiment implementing the function of deleting a diary entry, "deleting" a diary entry action by a user does not necessarily mean that the diary entry is physically removed from the database. Rather, a diary entry may simply be marked for deletion and not be seen or viewed on any diary list such as in connection with a user query or data retrieval. However, diary entries marked for deletion may be available if a user runs an ad hoc report specifically

15 asking for deleted diary entries. In other words, in this context, a delete functionality included in an embodiment may not physically delete a diary entry or entries from the systems, but rather control whether or not the diary entry is included in specific operations such as data queries and the like. This may vary in accordance with embodiment and implementation.

20 When modifying or amending information in a diary entry, an embodiment may create a new diary entry in the diary entry history list in order to display the history of all diary entries pertaining to a claim or unearned premium, for example. The functionality of a history list may optionally be included in an embodiment showing and recording those changes made in

connection with a particular diary entry. In one embodiment, all users may create their own

diary entries.

In one embodiment, one or more events may trigger the system to automatically create

5   and generate a diary entry. Referring now to Figure 25, shown is a chart which summarizes for

one embodiment the different actions that may trigger the automatic generation of the diary

entry. It should be noted that a particular embodiment may vary the trigger events that may

cause the automatic creation of a diary entry as well as not provided for any type of automated

diary entry creation and generation.

10

In connection with monies that may be paid out, for example, additional information such

as tax information may need to be captured in an embodiment in accordance with, for example,

federal government requirements. In connection with services and external dependencies such as

this, functionality may be included in an embodiment responsible for the creation, modification

15   as well as searching for a particular service provider or additional payee. For example, a

provider of service may include, for example, a defense attorney, a medical or healthcare

provider or other type of service provider used in connection with a claim. Additional payees

may include, for example, a finance company, a mortgage company, an assignee or other payee

used in connection with the processing of unearned premiums. A service provider or additional

20   payee may be added, for example. As with other functionality described herein, different types

of information may be required for appropriate data entry in a particular embodiment as well as

the access for performing a particular operations such as adding or modifying information being

restricted to a particular user role and assign security. In one embodiment, the ability to add a

88

service provider may be in accordance with assigned roles. In connection with a service provider

and payee, taxpayer ID number such as the Social Security number or employee identification

number may be required as well as information such as in accordance with when a particular W9

or other type of tax form has or will be sent.

5

Referring now to Figure 25, shown is an example of an embodiment 540 of the table

displaying what actions may trigger automatic diary entry creation. The table 540 in this

example consists of six columns summarizing information in connection with automatic diary

entry creation. Summarizing the information in table 540, in column 542 there is indicated a

10 particular function having an associated action indicated in field 544 indicating when an

automatic diary entry may automatically be created. For example, in connection with approval

functionality, when a claim payment is deleted, a diary entry may automatically be generated

with a particular diary type such as claim payment approval being indicated in the comment

field. Fields 548, 550 and 552 of an associated record indicate the different types of objects for

15 which this diary entry may be automatically created. These are indicated by a check in the

appropriate column or columns. For example, with regard to the approval when a claim payment

is deleted, this pertains only to claim processing in this particular example. Other types of

functionality may be associated with the processing of unearned premiums as indicated with a

check mark in appropriate columns 550 as well as generic 552 being indicated. Generally, as

20 shown in column 552 an indication of generic means that at the state the diary entry is created,

no claim or unearned premium data may be available.

Generally, as described in more detail in paragraphs that follow, Figures 26B through

26H form an example of one embodiment of a database schema that may be used in connection

with unearned premiums, claims processing, assessment processing and common functionality

between modules included in the system 10 of Figure 1. Referring now to Figure 26A, shown is

5   an example of an embodiment of a representation of the relationships between Figures 26B

through 26H.

Referring now to Figure 26B, shown is an example of a first portion of the database

schema representation in one embodiment that may be used in connection with representing data

10   and relationships between data items used in connection with unearned premiums, claims

processing and other common functionality that may be used by one or more modules in the

computer system 10 of Figure 1. It should be noted that for the description accompanying

Figures 26B-26H, and Figures 27 and 28, the database schema representation illustrates

relationships between different entities which may be implemented, for example, as objects for

15   use in a database. In this embodiment, the database schema of Figures 26A-26I, 27 and 28 is

drawn using functionality of the Erwin software system by Computer Associates, Inc. Generally,

described and shown is an entity relationship (E-R) model using this tool. This tool, and others,

uses different notations for representing relationships between the entities. For example, in the

representation included herein using the Erwin software tool, a portion of the lines drawn

20   between entities describe an "identifying relationship" using the IDEF1X notation of the Erwin

tool. An identifying relationship between two tables is a relationship in which an instance of

child table is identified through its association with a parent table which means that the child

table is dependent upon the parent table for its identity and cannot exist without it. In an

90

identifying relationship, one instance of the parent table is related to multiple instances of the child. In reference to the database schema herein, the identifying relationship may be represented as a solid line with a diamond or filled circle at either end of the line. Other lines are included in the representation in accordance with the options of the software tool used herein.

5   Other examples may use other notation that may vary.

It should be noted that each of the entities, such as 602, represented in the database schema includes a top portion, 602a as bounded by an upper box, and a lower portion 602b. The upper portion indicate primary key data items used in connection with, for example, performing

10   queries and other database operations. Each row or record of data included in the lower portion corresponds to a data item associate with an entity. Each record of data corresponding to a data item in this embodiment may be in a format that may be described as:

<ID-NAME>: <DATA DESCRIPTION> <Default Value>

in which <ID-NAME> represents an identifier name for the data item, <DATA DESCRIPTION>

15   is a description of a type of data that may be stored in connection with this item, such as a size of the field, for example, a number of digits or characters, and a data types, for example, such as integer, character, and the like. <Default Value> represents a default value, for example, that may be used when performing calculations, displaying a value associated with the data item in a graphical user interface, and the like. It should be noted that a particular embodiment may

20   include different items associated or included in each entity other than as describes herein and may vary in accordance with embodiment.

What will now be described are general descriptions for each entity that may be included in an embodiment using the schema of Figures 26A-26H. Entity 602 corresponds to a check that may be issued, for example, using computer system 10 of Figure 1 for payment in connection with claims. Entity 604 corresponds to check staging information. Entity 606

5   corresponds to provider information such as a provider of service, for example, a taxpayer, finance company, adjuster and the like. Entity 608 corresponds to UP_Policy data which represents unearned premium policy information.

Referring now to Figure 26C, shown is another portion of a representation of the database

10   schema 600 for claims, unearned premium, assessment and other common functionality. Entity 612 is a representation of the member information. Entity 614 is a representation of the member group to which a member may belong. Entity 616 includes member financials and information associated with the financial status of a member. UDS coverage code entity 618 shows different fields that may be included in an embodiment in connection with UDS coverage code

15   information. Entity 620 includes a representation of information that may be stored in connection with a line of insurance (LOI). Entity 622 describes those items that may be used in connection with insolvency UDS coverage codes. Entity 624 refers to an insolvency line of insurance entity. Entity 626 corresponds to split information, for example, as previously described herein in which a member may split into multiple members in connection with a

20   corresponding business transaction. Entity 628 represents an assessment transaction and the information that may be included in it and associated with it. Entity 630 represents an entity corresponding to a claimant injury and associated information.

Referring now to Figure 26D, shown as a third portion of a representation of a database

schema 600. Entity number 632 represents information stored in connection with a financial

cash receipt. Entity 634 represents assessment allocation information. Entity 636 represents

information for combining members. Entity 638 corresponds to an entity representing an

5   assessment financial status and information. Entity 640 represents assessment correspondence

information. Entity 642 represents liquidator information and data.

Referring now to Figure 26E, shown is a fourth portion of an example of the

representation of the database schema 600 that may be used in connection with unearned

10   premiums, claims, assessment processing, and common functionality processing. Entity 644

corresponds to an agent entity and associated information. Entity 646 corresponds to

information that may be used in connection with a W-9 IRS tax information form. Entity 648

corresponds to member state fund information. Entity 650 represents reserve information.

Entity 654 corresponds to a members nationwide premium information, for example, as may be

15   used in connection with assessments. Entity 656 corresponds to the state fund lines of insurance

per year and associated entity data. Entity 660 represents a file location entity and associated

information, and entity 662 includes the claimant entity and associated data.

Referring now to Figure 26F, shown is a fifth portion of a representation of the database

20   schema corresponding to 600 in accordance with Figure 26A. Entity 670 corresponds to an

entity for the claimant UDS coverage code information. Entity 672 includes member premium

insolvency information. Entity 674 represents a note entity and corresponding information.

Entity 676 represents the state fund year member tracking policy holder information per year, per

member, per state. Entity 678 represents a payment and associated information. Entity 680

corresponds to a system transaction such as in assigning a value and information in accordance

with records stored within the system of this particular implementation. Entity 682 corresponds

to a journal code entity which relates to an outside accounting module. Entity 684 corresponds

5   to a reversal entity and associated information. Entity 686 corresponds to a cash receipt detail

and associated information. Entity 688 corresponds to a recovery entity and associated

information. Entity 690 corresponds to a member insurance account entity and associated

information. Entity 692 corresponds to a state fund year status entity and associated information.

Entity 694 corresponds to a GL (General Ledger) account entry and associated information. It

10   should be noted that entity 692 represents information regarding premiums in connection with

assessment processing, by state, by year.

Referring now to Figure 26G, shown is yet another portion of the database schema 600 in

15   accordance with the previous descriptions shown in Figure 26A. Entity 700 corresponds to a

claim entity and associated information. Entity 702 corresponds to a diary entry or note and

corresponding data. Entity 704 corresponds to a state fund year insolvency and associated

information. Entity 704 represents assessment information that may vary by state. This is

similar to the information represented by entity 692 with the difference that this describes

20   information on an insolvency level of granularity. Entity 706 corresponds to member premium

information entity. Entity 708 corresponds to a diary history entity and associated information.

Entity 710 corresponds to member ratio information, for example, as may be supplied by the

NAIC and used in connection with performing assessments. Entity 712 corresponds to an

employee role, for example, as may be assigned in connection with different security roles and functions. Entity 714 represents a particular role that an employee may be assigned. Entity 716 corresponds to an employee and employee information. Entity 718 corresponds to the toxic site and associated information.

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Referring now to Figure 26H, shown is another portion of the database schema 600 as described previously in connection with Figure 26A. Shown in Figure 26H are details of the state fund state entity 720 and associated information, the premium base year entity and associated information 722, the state fund insurance account entity and associated information 724, the insurance account entity and associated information 726, and the GL transaction entity 728 and associated information.

It should be noted that in connection with Figures 26B-26H, various offline connectors are also shown as connecting common entities in the database schema description between the different entities representing relationships between the entities.

Referring now to Figure 26I, shown is another representation of the database schema of Figure 26A and as collectively represented in Figures 26B - 26H, 27, and 28.

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Referring now to Figure 27, shown is an example of an embodiment of a database schema representation of the various NAIC tables. Recall that NAIC tables may store information as supplied by the National Association of Insurance Commissioners. This example includes an NAIC table 750 with seven entities and associated data fields or information.

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Included in the NAIC database schema representation 750 is the NAIC nationwide entity 752,

the NAIC load entity 754, the NAIC member premium entity 756, the NAIC demographics

entity 758, the NAIC net income entity 760, the NAIC surplus entity 762, and the NAIC load

audit information 764. Generally, the NAIC nationwide information 752 includes nationwide

5 premium information for all solvent members within states requested from the NAIC. The

NAIC member premium entity 756 represents information for premiums of the different member

insurance companies. The NAIC demographic 758 includes the different types of information

provided in accordance with demographic information. Entity 754 represents a control table

including status information about other tables included in Figure 27 except for entity 764.

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Referring now to Figure 28, shown is an example of a representation of a database

schema for assessment module data that may be included in the database. The assessment data

770 includes a variety of different entities that may be included in an embodiment. The format

15 used in Figures 26A - 26H, Figure 27 and Figure 28 are similar, for example, in the form of an

entity and the relationships between entities as may be illustrated by the connectors.

In connection with performing operations, such as assessments, different states may have

different rules, statutes and the like setting forth how the funds are assessed and how such funds

20 may be maintained and managed. For example, one state may allow a taking of funds from

different insurance accounts while another state may allow for a borrowing of funds between

different accounts. Other states do not allow such a taking. Such rules may vary in accordance

with each state and may, for example, affect assessment processing, claim payments, unearned

premium payments and the like. By having modularized structure as described herein, an embodiment may compartmentalize specifics, such as rules, that may vary in accordance with state, such as by associating a particular customized SQL procedure with performing calculations and including rules as may vary with each state. This may provide for minimum impact on

5 coding changes, for example, and other code maintenance benefits.

In connection with performing different processing operations, different types of data may be used and produced. For example, in one embodiment, NAIC may provide data used in connection with performing assessments, such as information as to the number and ratio of

10 premiums written in each state, LOI , and the like. Claim information for active or pending claims at the time of an insolvency may be provided by different sources in any one or more of a variety of different forms. The system may also produce data in a variety of different output forms, as described elsewhere herein.

15 The claims processing module and associated functionality may include information tracking what has been paid on a claim before an insolvency occurred. This information may be useful, for example, in tracking different amounts of a claim, and the like including those monies prior to an insolvency. These may include, for example, tracking an aggregate amount or amounts paid out on a claim, such as in connection with the total amounts, for example, as

20 described in connection with Figures 22 and 23. In one state, such as MA, personal injury protection (PIP) amounts may be tracked in connection with a claimant per an insured's automobile policy.

HWD2 853264v2

Certain policies and coverages on policies have limits, such as no fault medical benefits in Massachusetts. Tracking and totaling amounts paid enables the coordination of insurance benefits.

5   As described herein, alert messages or notifications may be sent to one or more users on a the system in accordance with predetermined criteria, for example, when a use exceeds authority, reserve amounts, and the like. Limits may be specified and associated with a particular user id, or account, for example, in accordance with different job functions performed. For example, a reserve limit maximum may be associated with a particular user who may be handling particular

10   types of claims. A claims clerk may be processing claims dealing only with towing claims and there should generally be no need to exceed a limit of $200.00 paid out in a claim, or requested to be reserved with respect to a claim. Upon the occurrence of such an event, an alert message or notification may be sent to one or more other users, such as a claims manager, and the like. Such messages may be received by a manager, for example, when the manager reviews his or her

15   diary, or approves claim payments.

As described in more detail elsewhere herein, partial claim records, as may implemented using a record type of CBN, provide for creation of an incomplete or partial claim record. In one embodiment, a CBN and associated information may be entered, for example, when

20   insufficient information is obtained for entry of a complete claim. Rather than provide for no data entry until all claim information required is available, an incomplete claim entry may be made with a corresponding special status as may be indicated and designated in a status field displayed in connection with the data entered and displayed. When the status corresponds to a

CBN, there may be no required minimum number of data fields and values associated with a record. Alternatively, for a status associated with a complete claim, certain data fields are required for a data record to be entered and saved, for example, in the database.

5   A claim's status may be modified from "CBN" to that corresponding to a complete claim when additional needed information is obtained. Such a function associated with incomplete claim information and record creation may be useful in a variety of situations. For example, CBN status may be entered for those claims "in process", such as while physically locating a file with other information needed. This provides for partial claims data entry and creation. In

10   another example, an insurance company in a particular state may be declared insolvent. A policyholder may notify the insolvency service provider of the occurrence of an accident in which the policyholder was involved and others were injured. These others may be making later claims under the policyholder's auto policy but no actual claim has yet been made by another. The use of the CBN or partial claim status, for example, may allow a claim handler to create a

15   CBN status entering partial information, notes, such as those in connection with the policyholder's version of events, and the like. Subsequently, this information may be updated or added to when an actual claim is later made by another.

        It should be noted that in the foregoing description, a claim may be blocked from further

20   financial processing operations and financial claim entries. Mechanisms described herein, such as use of diary entries automatically created, may be used to notify other users associated with this blocked claim as to its status and may also include other information, such as a text description as to why the claim is blocked.

It should be noted that in one embodiment, portions of the functionality described herein

is written in Visual Basic and using SQL procedures as described herein. Different security

checks may be performed in accordance with the use of, for example, security objects of Visual

5   Basic and database access operations such as in connection with SQL procedures.

While the invention has been disclosed in connection with preferred embodiments shown

and described in detail, their modifications and improvements thereon will become readily

apparent to those skilled in the art. Accordingly, the spirit and scope of the present invention

10   should be limited only by the following claims.

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